1991-09

Conceptual data model for administrative functions of a typical naval ship, to include: Drug and Alcohol Program Advisor, Watch, Quarter and Station Bill, Safety, Medical, and Security

Montgomery, Daniel J.

Monterey, California. Naval Postgraduate School

NAVAL POSTGRADUATE SCHOOL

Monterey, California

THESIS

CONCEPTUAL DATA MODEL FOR ADMINISTRATIVE FUNCTIONS OF A TYPICAL NAVAL SHIP, TO INCLUDE: DRUG AND ALCOHOL PROGRAM ADVISOR, WATCH QUARTER AND STATION BILL, SAFETY, MEDICAL, AND SECURITY

by

Daniel J. Montgomery

September, 1991

Thesis Advisor: Magdi N. Kamel

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION Naval Postgraduate School 6b. OFFICE SYMBOL (*If applicable*) 55	7a. NAME OF MONITORING ORGANIZATION Naval Postgraduate School
6c. ADDRESS (*City, State, and ZIP Code*) Monterey, CA 93943-5000	7b. ADDRESS (*City, State, and ZIP Code*) Monterey, CA 93943-5000
8a. NAME OF FUNDING/SPONSORING ORGANIZATION 8b. OFFICE SYMBOL (*If applicable*)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (*City, State, and ZIP Code*)	10. SOURCE OF FUNDING NUMBERS Program Element No / Project No / Task No / Work Unit Accession Number

11. TITLE (*Include Security Classification*)
CONCEPTUAL DATA MODEL FOR ADMINISTRATIVE FUNCTIONS OF A TYPICAL NAVAL SHIP, TO INCLUDE: DRUG AND ALCOHOL PROGRAM ADVISOR, WATCH, QUARTER AND STATION BILL, SAFETY, MEDICAL AND SECURITY

12. PERSONAL AUTHOR(S) MONTGOMERY, DANIEL J.

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (*year, month, day*)	15. PAGE COUNT
Master's Thesis	From To	SEPTEMBER 1991	236

16. SUPPLEMENTARY NOTATION
The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

17. COSATI CODES			18. SUBJECT TERMS (*continue on reverse if necessary and identify by block number*)
FIELD	GROUP	SUBGROUP	DATA MODELING, ENTITY RELATIONSHIP DIAGRAMS, ENTITY CLUSTERING, DATABASE DESIGN, VIEW INTEGRATION

19. ABSTRACT (*continue on reverse if necessary and identify by block number*)

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20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION	
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS REPORT ☐ DTIC USERS	UNCLASSIFIED	
22a. NAME OF RESPONSIBLE INDIVIDUAL Magdi N. Kamel	22b. TELEPHONE (*Include Area code*) (408) 646-2494	22c. OFFICE SYMBOL AS/KA

DD FORM 1473, 84 MAR 83 APR edition may be used until exhausted
All other editions are obsolete

SECURITY CLASSIFICATION OF THIS PAGE
UNCLASSIFIED

Approved for public release; distribution is unlimited.

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Watch Quarter and Station Bill, Safety, Medical, and Security

by

Daniel J. Montgomery
Lieutenant Commander, United States Navy
B.A., Ottawa University

Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE IN INFORMATION SYSTEMS

from the

ABSTRACT

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I. INTRODUCTION

A. BACKGROUND

The Office of the Secretary of Defense (OSD) has recognized the need to reduce an estimated $9 billion spent annually on collecting and processing data into usable forms of mission essential information. To realize savings in the money spent on information technology, DoD Corporate Information Management (CIM) was established in October 1989 in order to "enhance the availability and the standardization of information in common areas and to provide for the development of integrated Management Information Systems." [Ref. 1]

Standardization allows for sharing of data between functional units and greater integration and interoperability between databases thus enhancing the effort of managing information. Additionally, standardization facilitates the accomplishment of the following goals: [Ref. 1]

1. Consolidating multiple systems that meet the same functional requirements.
2. Reducing unnecessary redundancy.
3. Developing common data requirements and formats to enhance interoperability.
4. Reducing the amount of annual expenditures associated with information technology.

To illustrate the importance of standardization, consider a possible Navy mission: the search and rescue of a disabled ship at sea. The disabled vessel's last known position is provided to a designated Scene of Action Commander (SAC) either from shore or from another ship (civilian or military).

Patrol aircraft or ships are designated and, provided with a description and general location of the vessel, are dispatched to conduct the search and rescue. Aircraft and ships working together exchange data about search patterns, weather conditions, geographic positions and rescue procedures to coordinate their efforts and minimize time. When the disabled vessel is located, ship position, material and personnel condition and other amplifying data are exchanged between search units and the commander. Without standard conventions for terminology, tactics or operations, the different units would have to expend much more time and effort to accomplish the same amount of data exchange in order to accomplish their mission.

Regardless of a unit's operational mission, there are several administrative functions that must be accomplished in order to meet other recurring requirements. To illustrate this point, consider the required monthly reports submitted by Navy units to superiors within their respective "chain of command." The reports from different units contain the same data but may vary in format, depending on where the report is sent. In some cases data elements are not standardized between reports. A typical example is a data element concerning "name" (e.g., individual, dependent) which can be stored in one of many different formats (first, middle, last or last, first, middle). This lack of standardization requires separate record maintenance and report preparation. In some cases, separate reports, containing the same data but in different formats,

must be generated to satisfy reporting requirements. Such a situation often gives rise to redundant record keeping and the inherent problems of control, integrity and accuracy of data. The standardization concept becomes more important when applied to afloat units (ships, staffs, air squadrons) that must interface with several different shore organizations, whether military (DoD), federal (e.g., USCG, FAA, DEA) or civilian (e.g., emergency services, port services).

Most efforts thus far have been directed at standardizing data elements, the lowest level in the hierarchy of data, as a foundation for standardizing Management Information Systems within DoD. An automated Data Dictionary System (DDS) was developed by the Army to provide on line access to all data elements created using the published data element naming standards. [Ref. 2]

While the standardization of data elements is an important step in promoting data exchange and facilitating data integration and interoperability, a higher level of standardization, at the schema level, is needed to better accomplish these goals. Since the organizational structure and functions of common areas (e.g., administration) within the organizational units of each service are very similar, schema level standardization is particularly appealing.

Consider, for example, the administrative functions and organization of a Navy unit. Regardless of size or operational mission, the administrative organization and functions of

Navy units are essentially the same as required by the **STANDARD ORGANIZATION AND REGULATIONS MANUAL OF THE U.S. NAVY (OPNAVINST 3120.32)**. Consequently, the data requirements to support these functions are common. Larger units have more functions and greater composition at the various levels of the organization structure (e.g., the number and designation of work groups). For example, a combatant ship might have four departments (Operations, Weapons, Engineering and Supply) while an aircraft carrier has several more departments (e.g., Air, Deck, Medical, Legal, Repair, etc.).

By standardizing data at the schema level, Navy units could easily exchange data (e.g., personnel, material, technical) between their onboard databases and external databases from other facilities. Personnel transfers, transfer of technical and material data between units (ship-ship, ship-shore), and updates to unit databases (e.g., technical info, supply) could be accomplished with a significant improvement in timeliness, data accuracy and integrity.

B. OBJECTIVE and SCOPE

This thesis develops a high level conceptual data model of a subset of the administrative functions common to a typical naval ship. The functions investigated in this thesis include DRUG/ALCOHOL PROGRAM ADVISOR (DAPA), WATCH, QUARTER AND STATION BILL (WQSB), MEDICAL, SAFETY and SECURITY. The data required to perform each function is captured in an Entity Relationship Diagram. These diagrams include the entities,

attributes, relationships and constraints required to perform each function. This method results in standardizing the data elements, which is clearly an important step in standardizing Management Information Systems within DoD. Standard data elements are used in developing the Entity Relationship Diagrams. These diagrams are then combined into a single, nonredundant, global schema that represents the global data required for these functions.

C. METHODOLOGY

To accomplish our objective of developing a high level conceptual data model of the specified functions, we use the following four step approach. For each function we:

1. Determine and analyze data user requirements, data items and data flows.

2. Develop a conceptual model to describe entities, data items, relationships, and constraints.

3. Compile a data dictionary that defines and describes all data items.

4. Integrate the resulting subschemas into a single, non-redundant schema.

D. ORGANIZATION

This thesis is organized as follows. Chapter II describes the standard shipboard organization and discusses the administrative functions to be examined in this study. Chapter III describes the data modeling approach and construction of the Entity Relationship Model used as the high level conceptual data model. Chapter IV applies the data modeling approach to construct a conceptual design of the shipboard administrative

functions previously described in Chapter II. Chapter V discusses the integration of these administrative functions by combining separate views of those functions into a single, nonredundant, global schema. Finally, Chapter VI summarizes our experience using the methodology and reviews conclusions and lessons learned during the course of this study.

II. STANDARD SHIP ORGANIZATION AND FUNCTIONS

A. SHIP ORGANIZATION

The requirement for conducting wartime missions is the basis for the standard organization of naval ships. In order to meet the requirements of an operational environment, a ship is organized along functional lines. This organization consists of functional departments which are divided into divisions, which are further sub-divided into work centers. The number of departments within a ship varies with ship type. For example, a large ship such as an aircraft carrier has many more departments than a smaller combatant such as a destroyer. However, regardless of ship type and number of departments, the organizational structure is basically very similar.

The organization of a Navy ship has two aspects. First, the static aspect deals with organization structure and can be illustrated in the form of organization charts and diagrams. Figure 1 illustrates a typical shipboard organization chart. The second, more dynamic aspect deals with the human element of the organization. The authority and responsibility for people assigned to various positions within a unit organization are described below and illustrated in Figure 2.

1. Commanding Officer

The Commanding Officer is charged with absolute responsibility for the safety, well-being and efficiency of his/her command. The duties and responsibilities of the Commanding Officer are established by U.S. Navy Regulations,

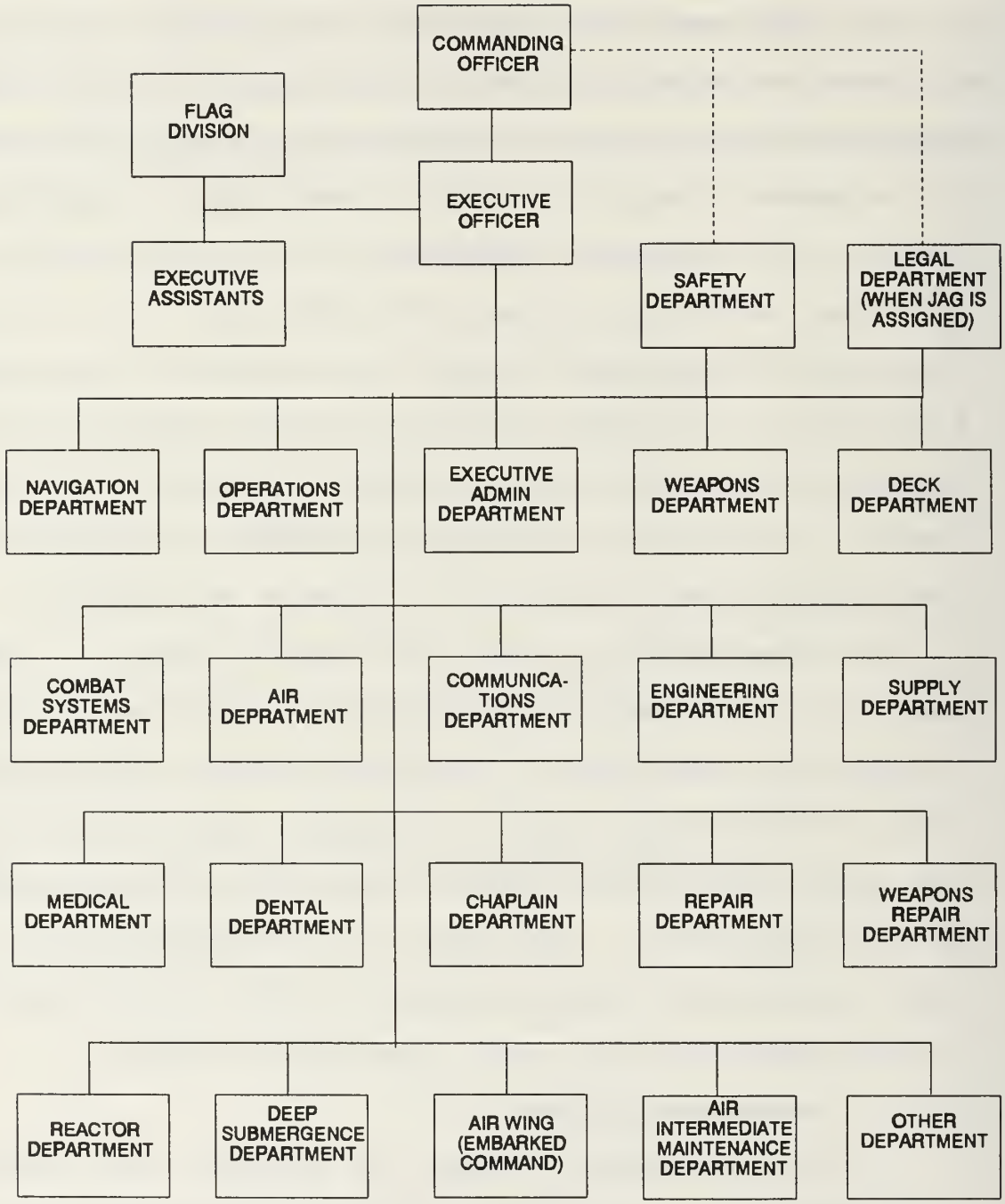

Figure 1: Standard Shipboard Organization

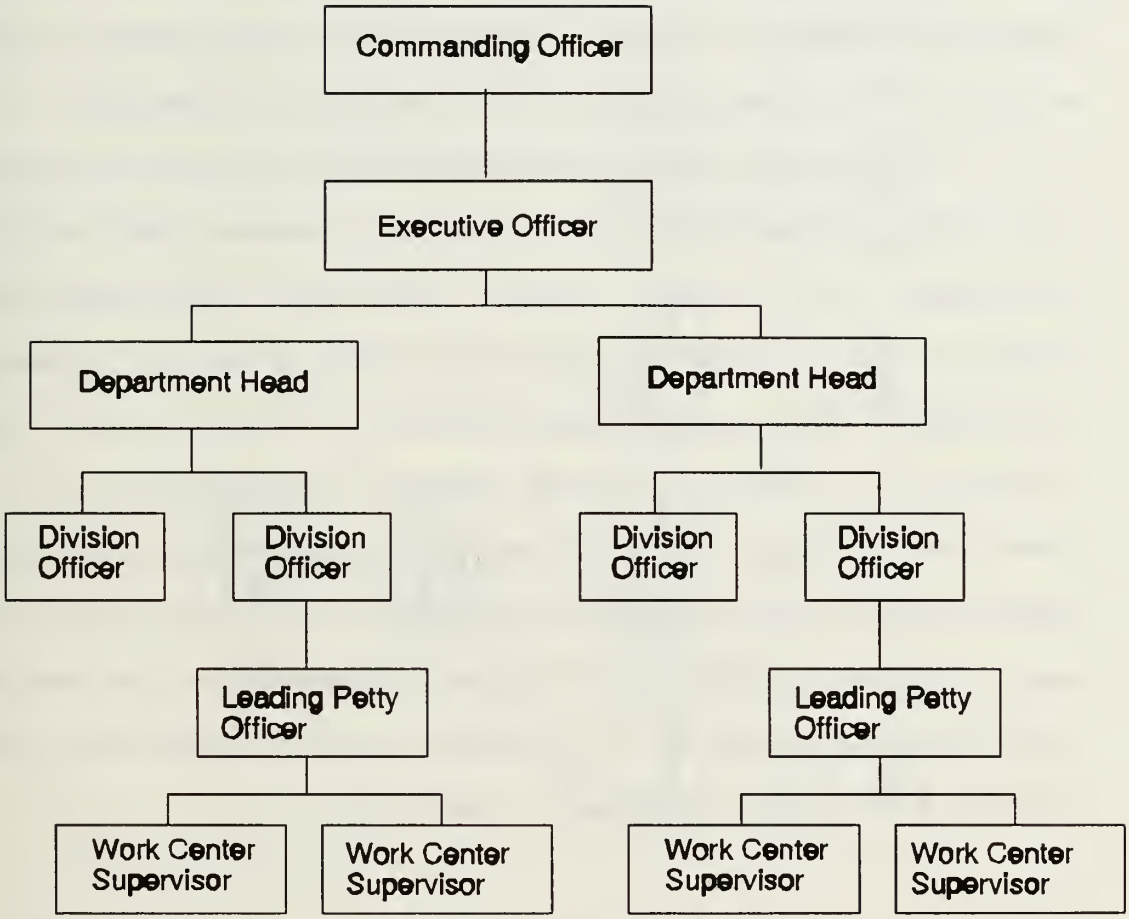

Figure 2: Departmental Organization

general orders, customs and tradition.

2. Executive Officer

The Executive Officer is the direct representative of the Commanding Officer and is primarily responsible, under the Commanding Officer, for the organization, performance of duty and good order and discipline of the entire command.

Assistants may be assigned to the Executive Officer to aid in the accomplishment of specific command administrative functions (i.e., Legal, Safety, Security, Training, Public Affairs, etc.). Executive assistant duties may be primary or collateral. When performing duties on a collateral basis, officers and petty officers acting as assistants to the Executive Officer report directly to the Executive Officer, regardless of their primary departmental or division assignments in the organization. Figure 3 illustrates the executive assistants examined in this thesis and an associated thesis done by Lt. Teresa N. Briede. [Ref. 3]

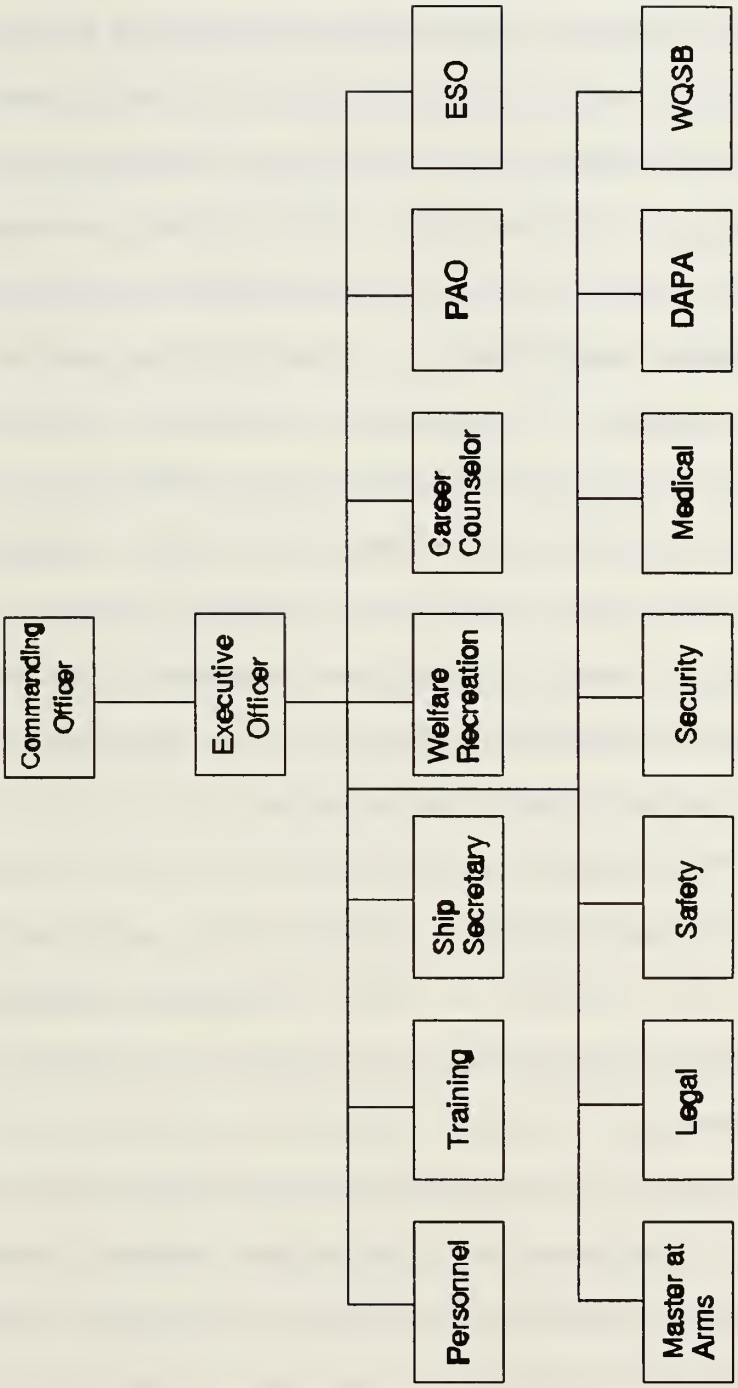

Figure 3: Executive Assistants

3. Head of Department

The Department Head is the representative of the Commanding Officer in matters pertaining to his/her assigned department, reporting directly to the Commanding Officer concerning departmental matters whenever such action is necessary. The Commanding Officer and, as appropriate, the Executive Officer, will be informed of the material and operational readiness of assigned equipment and shipboard spaces, status of equipment repairs, crew training, and personnel and material needs of the department. An officer may head more than one department on smaller ships.

Assistants required for the proper performance of department functions may be assigned to each department concerned. Specific functions may include Administration, Supply, Training and Maintenance.

The Department Head reports to the Executive Officer for all administrative matters and advises the Executive Officer of reports to the Commanding Officer. Immediate subcrdinates assigned to the Department Head report directly to him/her.

Within a given department there may be more than one division. For example, within the Combat Systems department there may be separate divisions for sonar, gunnery, missiles and electronic repair.

4. Division Officer

A Division Officer is assigned by the Commanding Officer to lead a division within a department of the unit's organization. He/she is responsible, under the Department Head, for the operational and maintenance duties assigned to the division as well as the training, conduct and welfare of personnel assigned to the division, following regulations and orders of the Commanding Officer and other superiors. The Division Officer must stay informed of the capabilities and needs of each subordinate, and within his/her authority, take actions to maintain the efficiency of the division and welfare and morale of subordinates.

The Division Officer reports to the Department Head regarding the performance of his/her assigned duties. Within a division, the following personnel report to the Division Officer:

- The junior division officer (when assigned) regarding assigned duties.
- Technical or material assistants (when assigned).
- The leading chief petty officer (LCPO) or leading petty officer (LPO), for the daily operations of the division.

5. Leading (Chief) Petty Officer (LCPO/LPO)

The senior chief petty officer or petty officer within a division is normally assigned duties of Leading (Chief) Petty Officer (LCPO/LPO). He/she assists the Division Officer in the administration, supervision and training of division

personnel. The division LCPO/LPO reports to the division officer (or junior division officer when assigned). A division may have more than one work center. For example, within the Sonar division of the Combat Systems department, there may be a work center for each sonar system, the torpedo weapon system and other weapon systems as necessary.

6. Work Center Supervisor (WCS)

The work center supervisor is normally the senior petty officer in charge of a specific operational or maintenance group within a division and will be responsible to the Department Head, via the Division Officer and LPO, for Material, Maintenance and Management (3-M) system operation and training within the work center. The work center supervisor reports to the division LPO and the department 3-M assistant. All personnel assigned to the work center report to the work center supervisor.

B. DATA REQUIREMENTS AND DATA FLOW

There are two types of data requirements within the ship's organization: operational data such as ship schedules and exercises, and administrative data requirements necessary for the daily functions of the ship, such as safety, personnel and training programs. In addition to the types of data required for the ship, the flow of data/information within a ship can be characterized in two ways: intra- and inter-departmental. Intra-departmental data flow is contained within the structured departmental boundaries previously described. For

example, information about the repair status of a piece of equipment in a given work center would move from the individual repairman through the work center supervisor to the Division Officer, via the division LPO, and continue through the Department Head to the Commanding Officer. This information path is referred to as "THE CHAIN OF COMMAND" and is bi-directional (top-bottom / bottom-top). This pattern can be characterized by a single source and several receivers of a given data item.

The second, and less structured, flow path is the inter-departmental data flow. In this scheme several sources provide data to a relatively few number of receivers. The data flows across several departmental boundaries at all levels within the unit. This multi-directional pattern is the least tangible but most often used data flow pattern in a unit. As an example, if a medical activity issues pain medication to a member (e.g., following oral surgery), the Medical department flags the member's record to identify that he is taking inhibiting medication; the Security Officer may have to temporarily suspend that member's participation in the ship's Security Force; and the Safety Officer will take steps to ensure that the member is not assigned duties or operating machinery that may create a hazardous condition.

Administrative data is the kind of inter-departmental data we are most interested in modeling as it is the most commonly shared data within the organization. Input and

utilization of this data by users from different departments would be significantly improved if the data elements could be identified and modeled for use in a database (central repository) onboard the ship. A central database would facilitate improved security and integrity of the data and provide for more timely and accurate information available to multiple users simultaneously. A shipboard database could be updated by internal as well as external sources (e.g., Manpower documents, technical data, etc.).

We examined the administrative data requirements onboard a typical Navy ship and identified the data maintained by the Executive Officer's assistants for various administrative functions to contain the majority of the data that we want to model.

C. ADMINISTRATIVE FUNCTIONS

Administrative data requirements are common to every position in the organization, regardless of department. The data can be categorized by function in a manner similar to the operational structure of the ship. In order to accommodate the efficient execution of these administrative functions, the Executive Officer assigns several administrative assistants to perform them. These administrative assistants may be either officers or enlisted personnel. Administrative duties may be collateral duties in addition to a member's primary function onboard the ship. For example, the Operations Officer may be assigned collateral duties such as Senior Watch Officer and

Training Officer. Other administrative duties, such as the medical representative in a small ship without a Medical department, are assigned as primary duties to a member of the crew. All department heads and executive assistants report directly to the Executive Officer with regard to administrative matters.

This study focuses on the following administrative functions common to any Naval ship, regardless of class: DRUG/ALCOHOL PROGRAM ADVISOR, WATCH, QUARTER AND STATION BILL, MEDICAL, SAFETY and SECURITY.

1. DRUG/ALCOHOL PROGRAM ADVISOR (DAPA)

The Drug and Alcohol Program Advisor (DAPA) function controls data pertaining to individual consultations (screenings) regarding substance abuse and chronic obesity. The DAPA also maintains information concerning referrals of members by the DAPA to other professional counseling centers for evaluation and/or assignment to rehabilitation programs.

2. WATCH, QUARTER AND STATION BILL (WQSB)

The Watch, Quarter and Station Bill (WQSB) function consolidates watch station assignments for every member of the crew. The WQSB lists, by billet number, the member's assigned inport and underway watch stations and associated duties as specified in various ship's operational, administrative, emergency and/or special bills. This function maintains data from all pertinent instructions, plans, notices or bills that specify personnel or manning requirements that affect any

shipboard department. For example, the Special Sea and Anchor Detail is promulgated as a ship instruction that specifies which stations are to be manned and the department responsible for providing personnel to man those stations. The responsible departments list members, by billet number, to fill those stations in the WQSB. Assignments for every crew member for all conditions (e.g., Condition I: General Quarters, Condition IV: peacetime/inport) and special at sea and inport details (e.g., underway replenishment, towing, anchor, rescue and assistance) are included in the WQSB.

3. **SAFETY**

The Safety function tracks data related to the various on-duty and off-duty safety programs throughout the ship. This function maintains data pertinent to the occupational safety of the service member while on duty. Areas of concern to the Safety Officer include: (1) Administering the Heat Stress Monitoring Program to ensure that no one suffers heat related injuries; (2) Maintaining noise survey data for selected spaces and compartments onboard the ship as part of the Hearing Conservation program; (3) Conducting investigations to document and evaluate data concerning accidents or incidents creating personnel hazards onboard the ship; (4) Supervising the identification and controlled use/storage of hazardous material items on the ship; (5) Supervising electrical safety checks on personal, habitability and division related electrical devices to ensure no personnel shock hazards exist; (6)

Monitoring the Equipment Tag-out program, which deals with information concerning the CAUTION and DANGER tags used by personnel to secure or otherwise operate specified equipment in a safe manner to accomplish maintenance, repairs, etc.; (7) Documenting tests done by the Gas-Free engineers to certify safe entry into spaces or compartments or to conduct hot work (welding, brazing, etc.) safely; (8) Investigating hazards in the ship or deficiencies in the shipboard safety program either reported by members of the crew or identified by safety survey /inspection teams; (9) Supervising the medical surveillance program which records and monitors personnel exposures to hazards such as asbestos, lead, radiation, etc.; (10) Administering motor vehicle safety courses attended by members of the crew; (11) Monitoring the training courses pertaining to athletic, home and recreational safety as required by higher authority; (12) Monitoring radiation surveys conducted onboard the ship to identify and evaluate the types and amounts of radiation that might be received by the crew; (13) Tracking respiratory equipment issued to members of the crew; and (14) Monitoring sight hazard surveys conducted on the ship to identify, monitor and protect against sources of personnel sight hazards such as lasers and machinery.

4. MEDICAL

This function deals with several aspects of the ship's medical program as well as medical support to the crew. The Medical function maintains data regarding injuries that may

occur to a crew member, the medical status of a member to perform assigned duties, and the issue of medicinals and immunizations given to members. Also, this function deals with data pertaining to physical exams, lab tests, sight and hearing exams, dental exams and a member's dental readiness classification. Additionally, this function maintains data concerning medical surveillance for exposure to radiation and other personnel hazards, as well as a member's attendance at sickcall and/or other medical service consultations as necessary.

5. **SECURITY**

This function maintains data on several aspects of shipboard security. The Security function is utilized to track the granting of security clearances and authorizing access to classified materials by individual members of the crew. This function also maintains data regarding the selection and screening of members into the ship's security force and, if necessary, the Personnel Reliability Program (PRP). Another area of concern is the identification and control of access to the ship by visitors, including visitors from foreign nations. Additionally, this function maintains data concerning the accounting and control (e.g., receipt, distribution, inventory, storage, reproduction and disposition) of classified material onboard the ship. The Physical Security program deals with the controlled access to selected compartments and equipments (e.g., key/lock inventories, equipment issue lists)

on the ship. Also, Automated Data Processing (ADP) Systems security maintains data concerned with the physical and material security of Information Systems (IS) equipment (e.g., inventories of computers and word processing equipment) and associated classified media.

The generic shipboard organization and administrative organization have been discussed, with administrative functions specific to this study described. The following chapters will utilize this information to develop conceptual schema for each view (function). Chapter III discusses this data modeling approach.

III. DATA MODELING

A. DATA MODELING APPROACH

The data modeling approach is a method of describing data from the user's point of view regardless of how that data is physically stored and utilized. The goal of data modeling is to capture the data requirements of an organization in a manner that is simple and understandable to both the designer and the end-user. The following is a brief description of the steps involved in data modeling which will be applied to modeling the data of a generic ship. Figure 4 is a graphical representation of these steps as it applies to database design.

1. Requirements Collection and Analysis

We must know the uses of the database and the expectations of the users in order to effectively design the schema. These requirements are collected and analyzed in this step. There are several approaches to collecting the necessary requirements of the system. The following are some of the more commonly used methods to perform this step (These are discussed in Ref. 4):

a. Identification of User Groups and Application Areas

User groups must be chosen and key individuals must be identified from each user group as the primary points of contact to assist with the requirements collection and specification. The major application areas and the user

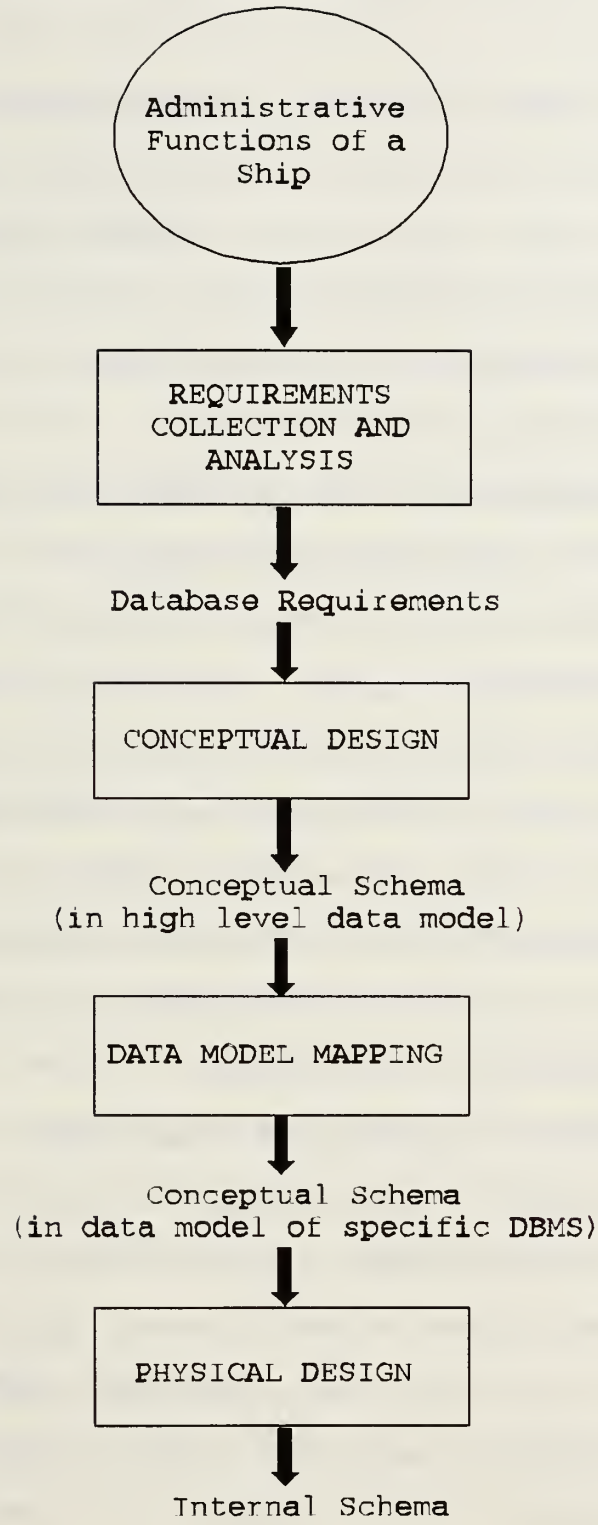

Figure 4: Database Design Method

groups that will use the database must also be identified in this step.

b. Review of Existing Documentation

The existing documentation for each application must be reviewed and analyzed. This documentation, which includes policy manuals, forms, reports, and organization charts, is examined to identify possible information that should be included in the database.

c. Analysis of the Operating Environment and the Processing Requirements

The processing requirements of the system must be analyzed, including current and future requirements. The transactions in the system are the best sources of information for this step. The transactions should be analyzed according to their type, frequency and their input and output data. The flow of information within the system should also be analyzed. This analysis will provide information about the frequency and volume of updates to the database.

d. Questionnaires and Interviews

Questionnaires should be given to the potential users of the database inquiring about their priorities and the importance they place on the different applications. The key individuals should be interviewed in order to obtain more detailed information about the worth of the information and the priorities.

In our application, the administrative functions of a generic ship were examined using all of the above mentioned methods, except questionnaires, to determine the data required to support each function.

2. Conceptual Design

The conceptual schema describes the data requirements of the users in a high level model, giving detailed descriptions of the entities, their attributes, relationships between these entities, and constraints on the relationships. Because implementation details are ignored at this point, this schema is easier for non-technical users to understand, and database designers can concentrate on describing the data requirements without concern about storage requirements. The multiple views which are developed must be integrated into a single, nonredundant, global schema in this step. This is required when more than one person, each with a different perspective of the world, is involved in requirements collection and analysis. A high level data model is used in this step because it is more expressive and general than data models of individual DBMS's. [Ref. 4] We have used the Entity Relationship Model (ERM) as our high level conceptual model. A detailed description of ERM is given in Section B.

3. Data Model Mapping

After this conceptual design (or schema) is completed, it is transformed from a high level data model to the implementation data model. This transformation is dependent on the

data model that will be used for implementation (e.g., relational, hierarchical, network) rather than a specific DBMS. For example, if we decide to use a relational DBMS for the final implementation, then a system independent relational schema will be the output of this phase. External schema (views) for each application using the database are usually defined during this phase.

4. Physical Design

The final step is converting this conceptual schema into the Physical Design, which specifies internal storage structures and file organizations for the specific DBMS used. [Ref. 4]

This study will focus on the first two steps in this data modeling approach. The administrative functions of a generic ship will be analyzed and the requirements for each function-will be collected utilizing the approaches described above. A high level data model will be developed for each function, and the independent views of these functions will be integrated intc a single, nonredundant, global schema.

The following section discusses the Entity Relationship Model and its constructs in detail.

B. ENTITY RELATIONSHIP MODEL

The Entity Relationship model is a technique used in developing high level conceptual data models. It consists of entities and their attributes and the relationships between

the entities. The basic constructs of the Entity Relationship Model are depicted in Figure 5.

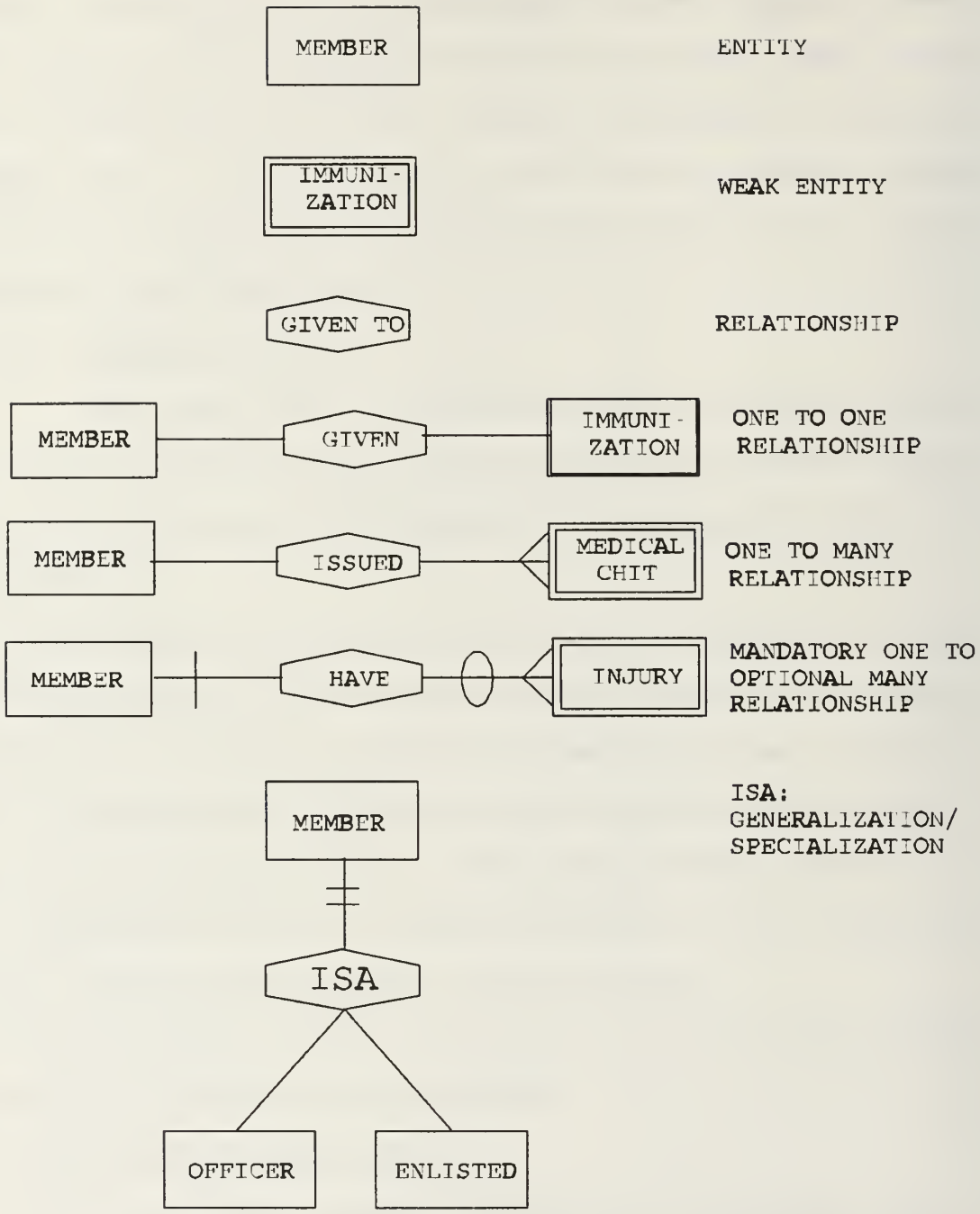

Figure 5: Basic Constructs in Entity Relationship Diagram

The constructs discussed in this section are derived from Reference 5.

An *entity* is a "thing" in the real world which can be distinctly identified. It is usually a person, place, thing, or event of informational interest and is represented by a rectangle. A particular occurrence of an entity is called an *instance* of that entity. For example, a MEMBER is an entity and an instance of this entity would be "LT John Smith". Each entity has specific *attributes* which further describe it. For example, a member may be described by his name, address, phone number, sex, age, etc. There is at least one attribute which uniquely identifies that entity: this is called the *key attribute* or *identifier*. For example, the key attribute for a MEMBER is social_security_number. A *weak entity* is an entity which depends on the existence of another entity type. For example, an IMMUNIZATION cannot occur by itself in an organization's database: it depends on the existence of the entity MEMBER. A weak entity is represented by a double rectangle.

Relationships represent associations between entities. For example, GIVEN is the relationship between a MEMBER and an IMMUNIZATION. A relationship is represented by a diamond-shaped box with lines connected to the related entities. Relationships can be classified according to the type of mapping between entities. These are one-to-one, one-to-many and many-to-many. As can be seen in Figure 5, a one-to-one relationship is represented by a straight line between the

entities and the relationship. A one-to-many relationship is represented by a straight line between the single entity and the relationship and a straight line between the relationship and the entity with multiple instances, with a crow's foot on the end next to the entity. A many-to-many relationship has crow's feet on the lines next to both entities. Relationships can also be classified according to whether they are mandatory or optional. If an occurrence of an entity must always exist for the other entity to be included in the relationship, then it is mandatory. If the occurrence need not exist, it is optional. For example, the relationship between MEMBER and INJURIES is Mandatory One to Optional Many. This means the MEMBER may have one or more INJURYs, but if an INJURY exists, it must belong to one MEMBER. It is important that the designer identify the type of mapping and existence constraints of relationships and include them in the entity relationship diagram. An optional relationship is represented by an "O" on the connecting line between the entity and the relationship, next to the entity that is optional. A mandatory relationship is represented by a straight line across the connecting line between the entity and the relationship, next to the entity that is mandatory. Figure 5 illustrates how these relationships are represented.

Generalization/Specialization (or ISA) relationships can also be represented in an Entity Relationship Diagram. Specialization occurs when an entity is partitioned by

different values of a common attribute: this is also known as a superclass and subclass relationship. For example, MEMBER is a generalization of OFFICER and ENLISTED service members. MEMBER is the superclass and OFFICER and ENLISTED are the subclasses. This is denoted by the ISA relationship, which is read MEMBER is a(n) ENLISTED. Both OFFICER and ENLISTED share common attributes, such as social_security_number or address, but both have distinct attributes associated only with that generalization/specialization. For example, OFFICER would have the attribute RANK, while ENLISTED would have the attributes RATE and RATING. ENLISTED would also have advancement exam data elements that an OFFICER would not have. A MEMBER can be either an OFFICER or an ENLISTED. If the MEMBER were an OFFICER, he would have all the attributes of MEMBER plus the attributes of OFFICER. If he were an ENLISTED he would have all the attributes of MEMBER plus the attributes of ENLISTED. In a generalization, a MEMBER would have to be either an OFFICER or an ENLISTED. In a disjunct specialization, a MEMBER would have the option of being OFFICER, ENLISTED, or neither. For example, a MEMBER could be a civilian employee and not included in OFFICER or ENLISTED. This is a disjunct relationship, because a MEMBER could be an OFFICER or an ENLISTED, but not both.

There is also an overlapping specialization. This is where an entity can be a member of more than one sub-class. For example, a PERSON could be a generalization of FACULTY, STAFF

and STUDENT. A PERSON could be a STAFF member and a STUDENT at the same time.[Ref. 5] Neither of these relationships occurs in this section of the study but the disjunct specialization is addressed in the associated thesis written by LT Teresa N. Briede. [Ref. 3]

In the next chapter, we will apply the Entity Relationship Methodology discussed previously to develop a high level conceptual model for the administrative functions studied in this thesis.

IV. CONCEPTUAL DESIGN

In this chapter we apply the data modeling approach presented in the previous chapter to modeling the data requirements for the following functions: DRUG AND ALCOHOL PROGRAM ADVISOR (DAPA), WATCH, QUARTER AND STATION BILL (WQSB), SAFETY, MEDICAL, and SECURITY. In the following sections we present, in detail, the Entity Relationship Diagrams for each function. In the text that follows, an entity is represented by uppercase words; mandatory relationships are stated with "must" and optional relationships are stated with "may".

A. DRUG AND ALCOHOL PROGRAM ADVISOR (DAPA)

The DRUG AND ALCOHOL PROGRAM ADVISOR (DAPA) is an administrative function performed by a member of the command. The Entity Relationship Diagram for the DAPA function is shown in Appendix A. The DAPA entity includes information such as advisor name as an identifier, certification date and phone number. The DAPA may conduct one or more CLIENT SCREENs on at least one MEMBER. The CLIENT SCREEN entity contains client number as the key attribute and other attributes such as screen date and screen program code. The DAPA may also arrange at least one REFERRAL for one or more MEMBERs for additional external counseling. The REFERRAL entity contains referral date and client number as identifiers and other attributes applicable to the MEMBER's treatment history, the presenting

problem and the MEMBER's performance, attitude, and leadership traits for the referral counselor.

B. WATCH, QUARTER AND STATION BILL (WQSB)

The Watch Quarter and Station Bill (WQSB) is an administrative function coordinated by the Senior Watch Officer. The Entity Relationship Diagram for the WQSB function is shown in Appendix B. The WQSB is a composite of various SHIP BILLs. The SHIP BILL entity contains bill name and bill number as key attributes and other attributes such as station name, station duty provide and bill type code. The WQSB entity contains billet number as the identifier and other attributes such as bill name, condition type, and station assigned. MEMBERs may be assigned to SHIP BILLs and are listed in the WQSB.

C. SAFETY

SAFETY is an administrative function which is performed by a MEMBER assigned duties as the Safety Officer. SAFETY consists of several programs to ensure the safety of the ship and its members. The Entity Relationship Diagram of the SAFETY function is shown in Appendix C. SAFETY may conduct at least one MISHAP INVESTIGATION. The MISHAP INVESTIGATION entity includes mishap date and mishap time as identifiers and other attributes including mishap category, mishap cause, and mishap location. SAFETY may investigate at least one HAZARD-/DEFICIENCY ITEM which contains information about items noted by an individual which have the potential to create a hazard or safety deficiency; this entity uses sequence number as the

identifier and includes attributes such as hazard identification code, report location, and report time. SAFETY must execute at least one ELECTRICAL SAFETY CHECK which keeps information about the electrical safety condition of various electrical equipments on the ship. ELECTRICAL SAFETY CHECK contains the key attributes check date and check type and other attributes such as authorization date and item name. SAFETY must organize OFF DUTY TRAINING regarding safety precautions exercised by MEMBERs while off duty. OFF DUTY TRAINING consists of the key attribute off duty safety type and other attributes such as off duty training date and off duty training topic. SAFETY must supervise one or more MEDICAL SURVEILLANCE EVALs, which are evaluations to determine if medical follow-ups are required on a MEMBER as a result of exposure to some type of a physical hazard. MEDICAL SURVEILLANCE EVALs contain the key attributes evaluation date and surveillance type. SAFETY must control one or more HAZARDOUS MATERIAL ITEMs that may be present onboard the ship. This entity contains the key attribute hazmat item number and other attributes such as chemical name, estimated usage, and shelf life. Information concerning HEAT STRESS EQUIPMENT may be maintained by SAFETY. HEAT STRESS EQUIPMENT is equipment used to conduct heat stress monitoring tests. This entity includes the key attribute equipment type and other attributes such as calibration date, recalibration date, equipment type quantity, etc. HEARING CONSERVATION SURVEYs must be recorded by SAFETY.

This entity includes the identifier compartment location, as well as other attributes such as noise source code, date of last survey, and noise level. SIGHT SURVEYs must be monitored by SAFETY. SIGHT SURVEY tracks information concerning particular compartments or spaces that contain personnel eyesight hazards such as lasers or heavy machinery. This entity includes the key attributes space location and survey date. RESPIRATORY EQUIPMENT must be tested by SAFETY to ensure the proper working condition and usage of the equipment issued to the crew. The RESPIRATORY EQUIPMENT entity contains fit test date and respirator type as identifiers and other attributes such as fit test type and user condition code. RADIATION SURVEYs may be tracked by SAFETY. RADIATION SURVEYs are conducted to determine the type and amount of radiation exposure received by a member. This entity includes the key attributes survey date and survey type. SAFETY may coordinate one or more MOTOR VEHICLE COURSEs on safety while driving a motor vehicle. The MOTOR VEHICLE COURSE entity contains the key attribute motor vehicle type and other attributes such as course name, course date, coordinator name, etc. SAFETY must review one or more GAS FREE TESTs which ensure a safe environment for members to enter into a space and/or perform hot work (i.e., welding, brazing, etc.). The GAS FREE TEST entity consists of the key attributes test date and compartment name as well as other attributes such as test action, entry type, and test expiration date, etc. SAFETY must audit at least one

EQUIPMENT TAG OUT to ensure all equipment is properly tagged for safe operation or maintenance. The EQUIPMENT TAG OUT entity contains the identifier department sequence number and other attributes such as action type, action date, system affected, equipment name, etc.

D. MEDICAL

MEDICAL is a double faceted administrative function. The first deals with the service member specifically, and the second deals with generic medical functions for the ship as an organization. A MEMBER may be assigned as the medical representative for the ship. The Entity Relationship diagrams of the MEDICAL function are shown in Appendix D. We discuss the member aspect first.

One or more INJURYs may occur to a MEMBER. An INJURY contains attributes pertaining to the circumstances of the INJURY occurring to the MEMBER. The key attribute is injury sequence number with other attributes such as injury location, injury date, injury diagnosis, and injury treatment. One or more MEDICINALs may be issued to a MEMBER. The MEDICINAL entity contains attributes that describe the type, nature and quantity of medicines that are given to a MEMBER. The key attribute is prescription number with other attributes such as medicinal date, patient number, national stock number, and quantity issued. A MEMBER may receive one or more RADIATION EXPOSUREs during his career. The RADIATION EXPOSURE entity contains information about radiation that a MEMBER may receive

in the course of his duties. RADIATION EXPOSURE contains the identifiers quarter number and sequence number as well as other attributes like radiation code, exposure skin dosage, total life dosage, permissible lifetime count, etc. At least one HEAT EXPOSURE may be received by a MEMBER. An instance of a HEAT EXPOSURE includes the identifier exposure date an other attributes such as personal heat exposure limit (PHEL) exposure time, PHEL recovery time, etc. A MEMBER must take at least one PHYSICAL EXAM during his career. PHYSICAL EXAM contains the key attributes physical exam date and exam type as well as other attributes like exam due date, exam results, physician name, etc. A MEMBER may be issued one or more MEDICAL CHITs containing the MEMBER's medical status for performing assigned duties. MEDICAL CHIT consists of the identifier chit type and other attributes such as chit reason, chit effective dates, etc. A MEMBER may go to one or more SICKCALL. An instance of a SICKCALL includes the identifier sickcall date and other attributes like vital signs, disposition type, disposition comments, etc. A MEMBER may be referred to at least one MEDICAL CONSULT, which contains information about medical services required from a facility other than the ship's medical department. This entity contains the key attributes consult date and consult type as well as other attributes such as consult time, consult place, consult reason, etc. A MEMBER may undergo one or more LAB TESTs for various medical purposes. LAB TEST is identified by sequence

number with other attributes including lab test type, lab test date, lab test results, etc. One or more occurrences of VISION INFORMATION may be maintained on a MEMBER. VISION INFORMATION is identified by eye exam date and contains other attributes such as eye exam type, eyewear indicator, lens type, etc. At least one occurrence of HEARING PROTECTION must be monitored on a MEMBER. HEARING PROTECTION contains the key attributes audiogram type and audiogram date, with other attributes including audiogram comments, double protection indicator, ear plug type, etc. One or more DENTAL occurrences may be tracked on a MEMBER. The DENTAL entity is identified by classification number with other attributes such as dental exam due date, follow-up date, etc. At least one IMMUNIZATION must be given to a MEMBER during his career. The IMMUNIZATION entity includes the key attributes immunization type and immunization date and other attributes such as immunization dose, batch number, etc.

The second aspect of the MEDICAL function deals with infcrmation applicable to the ship and/or the medical department. At least one INVENTORY ITEM must be kept by MEDICAL. INVENTORY ITEM is identified by inventory date and inventory type with other attributes such as inventory location, inventory allowance, item expiration date, etc. MEDICAL must execute one or more PEST CONTROL actions onboard the ship on a periodic basis. The PEST CONTROL entity includes the identifiers pest control date and pest control action with

other attributes like space sprayed, pest count, etc. MEDICAL must monitor at least one instance of HEAT STRESS which contains heat survey information of a particular space. An instance of HEAT STRESS is identified by heat survey sample date and heat survey sample location with other attributes including heat survey dry/wet bulb temperature, sample time, etc. MEDICAL must maintain one or more MEDICAL LIBRARY ITEMs, which provides reference information for the MEDICAL assistant. An instance of a MEDICAL LIBRARY ITEM includes the identifier publication number with other attributes such as publication date, publication title, etc. At least one WATER SAMPLE must be taken by the MEDICAL department to monitor the condition of the water stored onboard the ship. The WATER SAMPLE entity is identified by water test sequence number and includes other attributes like test date, bacteria test results, test location, test source, etc.

E. SECURITY

SECURITY is an administrative function consisting of six sub-functions: PHYSICAL SECURITY, PERSONNEL RELIABILITY, VISITOR CONTROL, CLEARANCE/ACCESS, AUTOMATED DATA PROCESSING (ADP) SECURITY and CLASSIFIED MATERIAL. A MEMBER may be assigned as the the ship's Security Officer or supervise one or more SECURITY sub-functions. The Entity Relationship diagram of the SECURITY function is shown in Appendix E.

1. Physical Security

PHYSICAL SECURITY involves information required to ensure the security and integrity of equipments and compartments onboard the ship. The Entity Relationship Diagram of the PHYSICAL SECURITY function is shown in Appendix F. One or more pieces of EQUIPMENT may be tracked by PHYSICAL SECURITY. An instance of EQUIPMENT is identified by equipment identification number; the other attribute is equipment location. PHYSICAL SECURITY may keep track of one or more KEYS & LOCKS for various spaces and equipments throughout the ship. KEYS & LOCKS is identified by key/lock serial number with other attributes including key/lock location and key/lock type. PHYSICAL SECURITY may control one or more KEYS which belong to a COMPARTMENT. An instance of a KEY is represented by a key serial number. PHYSICAL SECURITY may restrict access by personnel to one or more COMPARTMENTs. Information stored by PHYSICAL SECURITY about a restricted COMPARTMENT is identified by compartment number. Other attributes include compartment location and compartment name. One or more MEMBERs may carry one or more KEYS and may be authorized access to at least one COMPARTMENT.

2. Personnel Reliability

PERSONNEL RELIABILITY is an administrative program (function) utilized by the Security Officer of the ship to screen MEMBERs for special security programs (e.g., Nuclear Weapons). The Entity Relationship Diagram of the PERSONNEL

RELIABILITY function is shown in Appendix G. A MEMBER may be screened to become a PRP MEMBER. Information concerning PRP MEMBER is identified by PRP assignment status and PRP badge number. Other attributes include PRP certification date, PRP key access code, PRP certification date, etc. A MEMBER may be selected as a SECURITY FORCE MEMBER. A PRP MEMBER is a SECURITY FORCE MEMBER; however a SECURITY FORCE MEMBER may not necessarily be a PRP MEMBER. Information about a SECURITY FORCE MEMBER includes the key attributes security force billet name and security force duty section, with other attributes including security force status indicator, security force status date, weapon qualification type/date, etc. One or more PRP MEMBERs participate in the PRP. The information maintained on the command Personnel Reliability Program includes such attributes as PRP certifying officer name, certifying officer rank, number of controlled and critical billets required, etc. The PERSONNEL RELIABILITY PROGRAM must contain one or more PRP BILLETs. An instance of a PRP BILLET includes the identifier PRP billet name, as well as PRP assignment date and PRP billet type.

3. Visitor Control

VISITOR CONTROL is the administrative function which tracks the authorization of access to the ship by individuals other than the ship's crew. The Entity Relationship Diagram of the VISITOR CONTROL function is shown in Appendix H. VISITOR CONTROL may monitor at least one FOREIGN NATIONAL VISITOR. An

instance of a FOREIGN NATIONAL VISITOR includes the identifier foreign visitor arrival date and other attributes such as name, citizenship, clearance, etc. VISITOR CONTROL may log information about one or more VISITORs to the ship. An instance of a VISITOR includes the key attribute visitor arrival date and time, as well as other attributes like visitor badge number, visitor destination, etc. VISITOR CONTROL must track individuals who are entered on the authorized SHIP ACCESS LIST. An instance of SHIP ACCESS LIST includes the key attributes individual name and individual SSN, with other attributes such as individual clearance, individual organization, etc.

4. Clearance/Access

CLEARANCE/ACCESS is an administrative function that controls personnel clearances and access to classified material and spaces onboard the ship. The Entity Relationship Diagram of the CLEARANCE/ACCESS function is shown in Appendix I. One or more SECURITY CLEARANCEs may be granted to a MEMBER throughout his career. An instance of a SECURITY CLEARANCE includes the key attribute clearance date granted and other attributes such as clearance level, access level, clearance basis, etc. One or more ARREST RECORDs may be filed on a MEMBER. An instance of an ARREST RECORD consists of the key attributes arrest date and arrest offense, and other attributes such as arresting agency, arrest disposition, etc. A MEMBER may occupy one or more RESIDENCEs during his career. An

instance of a RESIDENCE includes the identifiers residence from date and residence to date and other attributes like residence address, roommate name, etc. A MEMBER may have contact with one or more FOREIGN ASSOCIATEs. An instance of a FOREIGN ASSOCIATE includes the key attribute foreign associate name as well as other attributes such as foreign associate address, foreign associate citizenship, etc. A MEMBER may obtain at least one CREDIT REFERENCE, an instance of which includes the identifier credit account number and other attributes like credit reference name and credit reference address. A MEMBER maintains one or more CHARACTER REFERENCEs. Information about a CHARACTER REFERENCE includes the identifier reference name and other attributes such as reference association, from/to dates, reference address, etc. A MEMBER may have one or more EMPLOYMENTs in his history. The information required about a member's EMPLOYMENT history includes the identifiers employment from date and employment to date, as well as other attributes like employer address, immediate supervisor, employer name, etc. A MEMBER may belong to one or more ORGANIZATIONs. Information concerning an ORGANIZATION includes the identifiers organization name and organization membership from date, and other attributes like organization type, and organization address. A MEMBER may keep a CREDIT HISTORY, which stores information concerning a MEMBER's bad credit, with logical attributes such as debt delinquency, unpaid judgements, garnished wages, repossessions, etc. A

SECURITY BACKGROUND may be maintained on a MEMBER which includes logical attributes to indicate if the MEMBER has had alcohol problems, foreign employment, illegal substance use, mental health problems, etc.

5. ADP Security

ADP SECURITY is the administrative function that pertains to the controlled access and utilization of ADP equipment and software. The Entity Relationship Diagram of the ADP SECURITY function is shown in Appendix J. One or more ADP SYSTEMs may be surveyed by the ADP Security Officer. The ADP SYSTEM entity includes the identifier ADP system identification and other attributes such as ADP system description, ADP system location, etc. At least one ADP COUNTERMEASURE is developed by the ADP Security Officer. An ADP COUNTERMEASURE instance contains countermeasure name. At least one ADP THREAT may effect one or more ADP ASSETs and ADP COUNTERMEASUREs. An instance of an ADP THREAT includes the key attribute threat name as well as threat level. The ADP Security Officer must maintain one or more ADP ASSETs. Information stored on an ADP ASSET includes the identifier serial number as well as other attributes such as asset type, asset description, location, price, etc. The relation "affects" contains the threat level assessed for a given threat with respect to a given COUNTERMEASURE and ASSET. The ADP Security Officer may assign at least one ADP CONTINGENCY PERSONNEL to handle contingency situations. The ADP CONTINGENCY PERSONNEL entity includes the

key attributes personnel name and contingency team and other attributes like personnel position, office phone, etc. The ADP Security Officer may specify one or more ADP CONTINGENCY SUPPLY ITEMs necessary in the event of a contingency situation. An instance of an ADP CONTINGENCY SUPPLY ITEM includes the identifier supply stock number as well as other attributes like supply source, supplier phone number, etc. The ADP Security Officer may track many ADP CLASSIFIED MEDIA used within the command. This entity includes the identifier media serial number and other attributes like media classification, directory listing, location, etc. One or more ADP ACCREDITATION must be obtained by the ADP Security Officer for the command throughout the command's life. The ADP ACCREDITATION information includes the key attribute accreditation date and other attributes like accreditation authorization, ADP processing level and mode, etc.

6. Classified Material Security

CLASSIFIED MATERIAL SECURITY is the sub-function which pertains to the handling and storage of classified material. The Entity Relationship Diagram of the CLASSIFIED MATERIAL SECURITY function is shown in Appendix K. CLASSIFIED MATERIAL SECURITY may record one or more CLASSIFIED MATERIAL items. A CLASSIFIED MATERIAL item includes the key attribute serial number, as well as origin date, receipt date, destruction date, etc. A CLASSIFIED MATERIAL item may have one or more DISCLOSUREs. DISCLOSURE information includes the key attrib-

utes disclosure date and disclosure name, and disclosure activity. CLASSIFIED MATERIAL SECURITY must oversee one or more SECURITY CONTAINERs. Information maintained on a SECURITY CONTAINER includes container number as the identifier as well as container classification, combination change date, etc. One or more SECURITY CONTAINERs may be accessed by one or more MEMBERs. A SECURITY CONTAINER must have one or more CONTAINER INSPECTIONs, which includes the key attribute inspection/repair date, plus other attributes like inspector initials, inspection comments, etc. A MEMBER may be designated as a COURIER one or more times during his career. COURIER information includes the identifier start date as well as end date, item description, etc. A MEMBER may make at least one CLASSIFIED REPRODUCTION REQUEST, which includes the identifier request date and other attributes like reproduction authority date, reproduction reason, etc. A MEMBER may sign one or more NON-DISCLOSURE AGREEMENTs indicating his acknowledgement of proper security procedures with regard to classified material. This information includes the key attribute acceptance command name and other attributes like agreement date, witness name, etc.

A consolidated data dictionary for all the Entity Relationship diagrams discussed in this is contained in Appendix L. An associated dictionary of abbreviations is contained in Appendix M. In the next chapter we will discuss and illustrate

the integration of these Entity Relationship Diagrams into one global high level conceptual schema.

V. VIEW INTEGRATION AND ENTITY CLUSTERING

A. VIEW INTEGRATION

The entity relationship diagrams of the administrative functions developed in Chapter IV represent the different user views of a generic ship's database. This chapter discusses the concept of integrating the different user views into a single, nonredundant, global schema. This integrated diagram is illustrated in Appendix N. The discussion regarding view integration is derived from Elmasri and Navathe [Ref. 4]

Different schema must be compared with each other to identify and resolve any conflicts before integration can be accomplished. Two primary types of conflicts which can occur are naming and structural. Naming conflicts include *homonyms* and *synonyms*. *Homonyms* occur when the same name is given to two or more different entities. These can be detected by scanning the different entity relationship diagrams and searching for common names. *Synonyms* can occur when different names are given to the same entity. These can be found by scanning the data dictionary and comparing similar names. If all of the diagrams were developed with the same CASE tool, as was the case in this thesis, a central data dictionary will not allow these conflicts to occur.

Structural conflicts occur in the schema structure itself. *Type conflicts* occur when different Entity Relationship constructs are used to describe the same concept. For example, a concept can be represented as an entity in one diagram and

as an instance of that entity in another diagram. This occurs in our study when describing the sub-functions associated with SECURITY. The ADP SECURITY entity is actually an instance of the SECURITY SUB-FUNCTION entity. *Dependency conflicts* occur when the connectivity between two entities is represented in two different ways. For example, one user may describe the relationship as a one-to-many and another user may describe the same relationship in a different view as a many-to-many. *Key conflicts* result when different key attributes are assigned to the same entity in different views. For example, one user may say the key attribute of DEPENDENT is the dependent's social security number, and another user may designate the dependent's first and middle name as the key attribute.

In this thesis, the previously described conflicts are less likely to occur as there was only one designer involved in the process. However, the different views must be compared and checked for conflicts, because the designer may see the same relationship or entity in another perspective when designing the different views.

After the conflicts are detected, users and designers need to interact in order to resolve these conflicts. The main goal is schema conformity for subsequent integration. This may involve modifying entity names, resolving relationship constraints and connectivity, changing key attributes on some entities, etc.

The actual merging and restructuring of the schema is the final step in the view integration process. Entities that occur in several views, e.g., MEMBER, are merged or superimposed in the integrated view. Other entities that do not overlap will stay unchanged with their relationships to the common entities. Any redundant relationships that occur from the merge can be deleted. The designer must make sure that the integrated view makes sense to the user, that all redundant entities and relationships are removed, and that the global schema is complete. Once a global schema is developed, it can become extremely large and complex. One method to reduce complexity in the global schema is a technique called entity clustering.

In this thesis, each of the administrative function entity relationship diagrams was examined and modified, as necessary, to resolve any conflicts detected in the diagrams and enable integration. The different executive assistants for each administrative function were renamed as "EXECUTIVE ASSISTANT". The common entities in each diagram were then merged into one entity for each type. These included MEMBER, EXECUTIVE ASSISTANT and DEPARTMENT. Individual instances of the SECURITY sub-functions (i.e., PHYSICAL SECURITY, PRP, VISITOR CONTROL, ADP, CLASSIFIED MATERIAL) were combined to form the entity EXECUTIVE ASSISTANT SUB-FUNCTION. Next, abstraction grouping was applied to the EXECUTIVE ASSISTANT SUB-FUNCTIONs to form the EXECUTIVE ASSISTANT entity cluster. The remainder of the

entities did not overlap, so they appear unchanged in the merged, global schema. The clustering technique was then applied to the global schema. This technique is discussed in the following section.

B. CLUSTERING CONCEPTS

Layered levels of abstraction can be achieved using entity clustering to create a higher level view, with fewer details, of the integrated global schema. This helps the user and the database designer to better understand and manage a potentially large and complex database. The entity clusters formed as a result of using this technique are illustrated in Appendix O.

The entity clustering technique can be thought of as a *grouping* operation which combines entities and their relationships to create a higher level of abstraction. Multiple levels of abstraction can be formed by grouping entities into clusters and clusters into higher level entity clusters. The four most common grouping operations are: dominance grouping, abstraction grouping, constraint grouping, and relationship grouping. [Ref. 6]

1. Dominance Grouping

In this operation, each dominant entity is grouped with all of its related nondominant entities to form an entity cluster. Weak entities and entities that are dependent on another entity can be absorbed into their related entity to form a cluster.

2. Abstraction Grouping

In this operation, multilevel objects, for example, generalization/specialization or aggregation, are combined to form an entity cluster. The supertype or aggregate entity name is used to name the entity cluster.

3. Constraint Grouping

In this operation, constraint related objects that extend the Entity Relationship Model, for example, two or more entities related to an entity but constrained by an exclusive OR relationship, are combined into an entity cluster. The entity cluster is named with the name of the dominant or parent entity.

4. Relationship Grouping

In this operation, relationships with a degree of three or more are grouped into an entity cluster. The entity cluster name is the name of the relationship.

In developing the high level schema, any or all of these techniques can be used. The designer must choose the operations which best suit the character of the database.

It is very important to validate the cluster diagram after the grouping is complete. The consistency of the relationships between entities must be checked at each level of the diagram. The meaning of each level must also be verified by the end-users.

Creating multiple levels of abstraction with the entity clustering technique, simplifies the diagram for end-user

comprehension, without losing the complexity necessary for the database designer.

In this thesis, abstraction and dominance grouping techniques were used. In the SAFETY function, dominance grouping was applied to the non-dominant and weak entities related to EXECUTIVE ASSISTANT to form the entity cluster EXECUTIVE ASSISTANT-SAFETY.

In the SECURITY function, dominance grouping was applied to the weak and non-dominant entities of the SECURITY-CLASSIFIED MATERIAL sub-function related to MEMBER to form the MEMBER-CLASSIFIED MATERIAL entity cluster. Next, dominance grouping was applied to weak entities of the SECURITY-CLEARANCE/ACCESS sub-function that related to MEMBER to form the MEMBER-CLEARANCE/ACCESS entity cluster. Then instances of SECURITY sub-functions (e.g., PHYSICAL SECURITY, PRP, VISITOR CONTROL, ADP SECURITY, CLASSIFIED MATERIAL) were grouped into the EXECUTIVE ASSISTANT SUB-FUNCTION entity cluster. Finally, abstraction grouping was applied to the SECURITY entity to form the EXECUTIVE ASSISTANT-SECURITY entity cluster.

In the MEDICAL function, dominance grouping was applied to the weak entities and non-dominant entities related to MEMBER to form the MEMBER-MEDICAL entity cluster. Next, dominance and abstraction grouping was applied to the weak entities of MEDICAL to form the EXECUTIVE ASSISTANT-MEDICAL entity cluster.

In the DAPA function, the weak entities related to MEMBER were grouped into the MEMBER-DAPA entity cluster using dominance grouping.

In the WATCH,QUARTER & STATION BILL (WQSB) function, the non-dominant BILLET and SHIP BILL entities were combined into the WQSB entity cluster using abstraction grouping. Then the WQSB entity was combined with the DEPARTMENT entity to form the DEPT entity cluster.

These functional clusters were applied to the global picture and the MEMBER clusters were combined to form a single MEMBER cluster called MEMBER-ADMIN. The EXECUTIVE ASSISTANT SUB-FUNCTION entity was combined with EXECUTIVE ASSISTANT to form the EXECUTIVE ASSISTANT entity cluster. The resulting high level diagram contains the DEPARTMENT, MEMBER-ADMIN and EXECUTIVE ASSISTANT entity clusters.

This high level abstraction is very simple with few details; it is used to give the user a broad view of the system. The remaining clusters show the important areas of focus in the system. The designer will use the lower level diagrams with the details to develop a database.

In the next chapter, the conclusions and recommendations resulting from this study are discussed.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The objective of this thesis was to explore the possibility of developing a high level conceptual data model for the administrative functions of a generic naval ship. This study has shown that it is indeed possible to develop such a model.

Our focus when using the data modeling appoach was to capture the data requirements as the basis for developing computer based applications. This focus differs with other methodologies of system design that concentrate on specifying functional or process requirements. As the organizational environment changes, so do the process requirements that support the different organizational units. Organizational data requirements, however, tend to be more stable over the life of that system.

Our approach is comparable to the CIM initiative in that it places emphasis on specifying data requirements rather than process requirements, thus providing a good foundation for standardization of information. CIM efforts, however, have been directed toward the standardization of data elements, the lowest element in the data hierarchy, as the foundation for standardizing information systems at DoD. Our efforts extend beyond the CIM initiative by specifying a common conceptual data model for Navy ships. The conceptual data model can be readily transformed into a standardized model-specific schema. This approach is particularly appealing within a Navy environ-

ment because by their nature, Navy organizations are generally structured in the same manner. This uniformity lends itself to the development of a standardized schema. This standardized schema can then be tailored to fit the structure of a specific organization.

From the standardized schema, a "master" database can be developed from which specific databases for each ship class or type can be generated or modified as necessary. For example, a newly commissioned ship can download its command database from an established master database. This process will significantly reduce the man-hours necessary to manually design and develop a command database. Subsequent updates to the command database can be accomplished electronically from the master database. This process will also improve the integrity, accuracy and security of the data. Additionally, the requisite amount of paperwork, storage space and database maintenance will be significantly minimized.

Schema standardization also makes possible the development of applications that are fully compatible between shore and fleet units. The advantage of establishing standardization at the schema level can be realized when data transfers between units both ashore and afloat can be accomplished without protocol or format conversions. To illustrate this concept, imagine a ship's personnel office updating the Enlisted Data Verification Record (EDVR) via direct on-line access to a master personnel database in Washington, D.C., which maintains

personnel and manning information for all Navy units or activities. Queries, updates and verifications could be accomplished in a matter of minutes with immediate on-line verification. This would be a significant improvement over current mailing delays, non-receipt or misrouting of message traffic and cumbersome manual update and verification procedures. The standardized schema will also improve interoperability between ships and their administrative and operational chains of command. Ships could electronically transfer operational, technical, material and personnel information to squadron, group and type commanders. This information could be consolidated with the other ships' information and used for monitoring ship material, personnel and operational readiness status for administrative and operational tasking, certifications, assessments and inspections. Data exchange can be accomplished via telecommunication circuits that are not physically or geographically limited (e.g., telephone land line, satellite communications, etc.), thus providing real-time information regardless of location.

If applied to other functional areas within and/or between services, our approach could benefit efforts to accomplish data exchange between organizations. More importantly, however, is the potential for significantly improving data exchanges among different branches within the DoD. Joint interoperability has become a paramount objective of the

Secretary of Defense, the importance of which has been clearly demonstrated by recent events in the Middle East.

This study has followed the standards established by the CIM initiative with one exception: The naming conventions defined by CIM, which exclude abbreviations and acronyms, create unreasonably long data element names. This constraint severely limits the number of available CASE tools for system design. Most tools generally allow data element names with a maximum limit of 32 characters. In many instances, compliance with CIM naming conventions generated data element name lengths in excess of 60 characters. It is not unreasonable to expect standard acronyms and abbreviations to be understood by users. Standardized lists such as the Dictionary of Naval Abbreviations are readily accessible to users for clarification of an unfamiliar term. Incorporation of standardized and approved abbreviations and acronyms into the CIM data dictionary would reduce data element names to a length which is acceptable to most CASE tools, facilitating improved use of those tools with data modeling and system design in accordance with the CIM initiative without compromising the clarity of data element names.

Several CASE tools were evaluated before choosing Chen and Associates ER-DESIGNER for use in this study. This CASE tool most closely met our requirements for diagramming features, report generation, automated and centralized data dictionary, and ease of use. Additionally, Chen and Associates provide

other interactive tools for further development of this project. It also supports interaction with the up coming IBM Repository, a tool that would allow greater interoperability with the CASE tools currently being used by DoD and supporting agencies.

One of the problems encountered in using ER-DESIGNER software was the inability to properly show the mandatory or optional relationships between entities. In order to show this feature, we had to use the software feature of showing the upper and lower bounds in a relationship. Their zero was our optional "O" and their one was our mandatory line. This procedure restricts the use of the report generator function of the tool, because the detailed reports on relationships are inaccurate.

B. RECOMMENDATIONS

Our recommendation is for DoD to develop or acquire a central repository package which will accept and store data from many other tools in a standardized data dictionary. A good example of this concept is the AD CYCLE package developed by IBM. By following this approach, DoD could utilize existing CASE tools and acquire other tools as necessary with a reduced level of concern for compatibility with other tools or system integration capability over the entire life cycle. Even if a tool has its own central repository and is integrated over the entire life cycle, like Texas Instrument's IEF, it cannot interact with other tools. Emphasis should be placed on the

central repository package, which can alleviate concerns about integration or interoperability between the different CASE tools and resultant conversion costs. This will achieve the standardization goals of the CIM initiative at a point much earlier in a project's life cycle. It will also allow users to use the tools of their choice without having to discard tools that have already been purchased and avoid mandatory use of one "standardized" set of tools. The DoD is currently designing a "standardized" CASE tool for everyone. If this occurs, millions of dollars may be lost in converting all of the information from systems currently being developed by other CASE tools into this new tool. In addition, the large dollar investment for CASE tools already in use may be lost. The idea of a single standardized CASE tool to meet every user's needs would require such a high level of complexity that it would necessitate a substantial investment of dollars and development resources.

C. FUTURE RESEARCH EFFORTS

Future efforts should be made to take the data model developed in this study and complete the database design. This includes developing a model specific schema (i.e., relational, hierarchical or network) and the physical design of a DBMS specific model as discussed in Chapter III. Such efforts should continue to comply with the standards of information established by the CIM initiative.

Finally, we feel the concepts discussed in this thesis are applicable to several other functional areas, both administrative and operational, within the Navy and other services of the DoD. As the size of our military forces is reduced and budget constraints become more demanding, increased levels of joint service interoperability will be required. We perceive a need for development of high level conceptual data models for other functions within the Navy as well as other services to improve requisite interoperability and minimize redundancy among the different branches of DoD. Development and standardization of conceptual data models will facilitate development of systems for improved data exchange and data management between the services.

LIST OF REFERENCES

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4. Elmasri, Ramez, and Navathe, S.B. *Fundamentals of Database Systems*, Redwood City, CA: Benjamin/Cummings Publishing Co., 1989.

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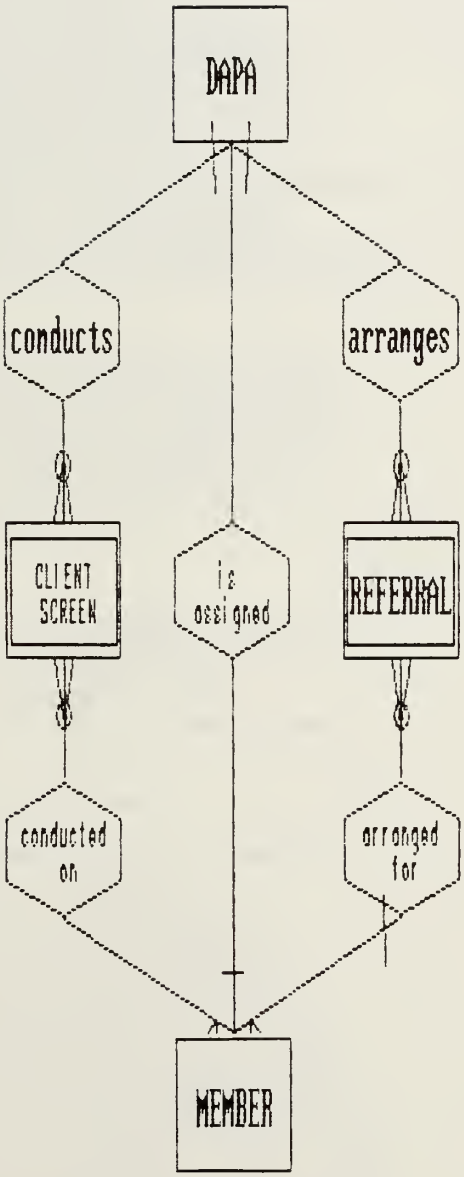
APPENDIX A

DAPA ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the DRUG and ALCOHOL PROGRAM ADVISOR function as discussed in Chapter IV.


DAPA
conducts
is assigned
arranges
CLIENT SCREEN
REFERRAL
conducted on
arranged for
MEMBER

STRUCTURE REPORT FOR DAPA - VERSION 2.11

```
CLIENT SCREEN =
      DAPA_CLIENT_NUMBER
    + DAPA_SCREEN_DATE
    + DAPA_CLIENT_NAME_
    + DAPA_DETECTION_CATEGORY
    + DAPA_DETECTION_PREVIOUS_NUMBER
    + DAPA_FACILITY_CODE
    + DAPA_FACILITY_STAFF_NUMBER
    + DAPA_PREVIOUS_TOXOCOLOGY_IND
    + DAPA_REFERRAL_AGENCY
    + DAPA_REFERRAL_CONTACT_NAME
    + DAPA_REFERRAL_PHONE
    + DAPA_REFERRAL_TYPE_CODE
    + DAPA_SCREEN_CLIENT_SIGNATURE_IND
    + DAPA_SCREEN_COUNSELOR_NAME
    + DAPA_SCREEN_PROGRAM_CODE
    + DAPA_SCRN_COUNSEL_SIGNATURE_IND

DAPA =
      DAPA_NAME_OF_ADVISOR
    + ADMIN_SCREEN_ACTION_ITEM_CODE
    + ADMIN_SCREEN_ACTION_ITEM_COMMENT
    + ADMIN_SCREEN_ACTION_ITEM_DATE
    + DAPA_CERTIFICATION_DATE
    + DAPA_CERTIFICATION_DUE_DATE
    + DAPA_DESIGNATION_IND
    + DAPA_PHONE

MEMBER =
      MEMBER_CLIENT_NUMBER
    + MEMBER_SOCIAL_SECURITY_NUMBER
    + MEMBER_DIVISION_ASSIGNED
    + MEMBER_WORKCENTER
    + MEMBER_WORKCENTER_PHONE_NUMBER

REFERRAL =
      REFER_CLIENT_NUMBER
    + REFER_DATE
    + REFER_CLIENT_ATTITUDE_REMARKS
    + REFER_CLIENT_COMMAND
    + REFER_CLIENT_COMMAND_UIC
    + REFER_CLIENT_DAPA_COMMENTS
    + REFER_CLIENT_INFORMATION_IND
    + REFER_CLIENT_LEADERSHIP_CMNT
    + REFER_CLIENT_LEADERSHIP_CODE
    + REFER_CLIENT_MED_DOCUMENTS_IND
    + REFER_CLIENT_PERFORMANCE_CODE
    + REFER_CLIENT_PERFORMANCE_COMMENT
    + REFER_CLIENT_PERFORMANCE_TYPE
    + REFER_CLIENT_PERSONAL_TRAIT_CMNT
    + REFER_CLIENT_PERSONAL_TRAIT_CODE
    + REFER_CLIENT_PERSONAL_TRAIT_IND
    + REFER_CLIENT_PREV_TREATMENT_CODE
```

+ REFER_CLIENT_PREV_TREATMENT_DATE
+ REFER_CLIENT_PREV_TREATMENT_IND
+ REFER_CLIENT_RELATIONS_CODE
+ REFER_CLIENT_RELATIONS_COMMENTS
+ REFER_CLIENT_RELATIONS_TYPE_CODE
+ REFER_CLIENT_RETENTION_RECOMMEND
+ REFER_CLIENT_SUPERVISOR_COMMENTS
+ REFER_CLIENT_SUPERVISOR_NAME
+ REFER_CLIENT_TAD_INDICATOR
+ REFER_DAPA_COMMAND
+ REFER_DAPA_NAME
+ REFER_DAPA_PHONE
+ REFER_PRESENTING_PROBLEM

ATTRIBUTE REPORT FOR DAPA - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
ADMIN_SCREEN_ACTION_ITEM_CODE	ADSCRITM	N,2	N	DAPA E

SC: CODES TO IDENTIFY SPECIFIC ADMIN ACTION ITEMS

Long Comment :
ADMIN ACTION ITEM CODES:
1 - MEMBER IDENTIFIED IN WRITING AS DRUG/ALCOHOL ABUSER
2 - GET MEDICAL/SERVICE RECORD
3 - GET MEMBER'S SUPERVISOR TO COMPLETE WRITTEN EVALUATION
4 - SERVICE RECORD REVIEW COMPLETE
5 - MEDICAL RECORD REVIEW COMPLETE
6 - INTERVIEW WITH MEMBER COMPLETED AS NECESSARY
7 - CAAC APPOINTMENT SCHEDULED AS NECESSARY
8 - CAAC EVALUATION RECEIVED
9 - MEDICAL OFFICER APPOITMENT SCHEDULED AS NECESSARY
10 - MEDICAL OFFICER'S EVALUATION RECEIVED
11 - DAPA RECOMMENDATION TO THE COMMANDING OFFICER
12 - DAAR DRAFTED
13 - DAAR TRANSMITTED
14 - PROGRAM ENTRY LETTER COMPLETED
15 - PAGE 13 ENTRY COMPLETED
16 - MEMBER SENT TO TX LEVEL I, II, OR III
17 - MEMBER RETURNED FROM TREATMENT
18 - AFTERCARE ORDERED/PROGRAM ENTRY LETTER UPDATED
19 - COMPLETE PROGRAM EXIT LETTER
20 - SEPERATE MEMBER AS NECESSARY FOR REHABILTATION FAILURE

ADMIN_SCREEN_ACTION_ITEM_COMMENT	ADACTCMNT	C,120	N	DAPA E

SC: COMMENTS CONCERNING THE SPECIFIED ADMIN ACTION ITEM

ADMIN_SCREEN_ACTION_ITEM_DATE	ADSCRDT	D	N	DAPA E

SC: DATE THE SPECIFIED ACTION ITEM WAS COMPLETED OR UPDATED

DAPA_CERTIFICATION_DATE	DAPCERTDT	D	N	DAPA E

SC: DATE WHEN THE DAPA COMPLETED CERTIFICATION REQUIREMENTS

DAPA_CERTIFICATION_DUE_DATE	DAPCERDU	D	N	DAPA E

SC: DUE DATE FOR RECERTIFICATION TRAINING TO BE COMPLETED AS NECESSARY

DAPA_CLIENT_NAME_	DAPCLINAM	C,50	N	SCREEN W

SC: NAME/RANK/TITLE OF THE CLIENT

DAPA_CLIENT_NUMBER	DAPCLINUM	N,7	Y	SCREEN W

SC: SEQUENTIAL NUMBER BY YEAR FOR TRACKING AND RECORD PURPOSES (YYNNNNN)

DAPA_DESIGNATION_IND	DAPDESIND	L	N	DAPA E

SC: INDICATES IF THE COMMAND DAPA HAS BEEN DESIGNATED IN WRITING

DAPA_DETECTION_CATEGORY	DAPDETCAT	N,1	N	SCREEN W

SC: THE CATEGORY OF DETECTION FOR THE REFERRAL

DAPA_DETECTION_PREVIOUS_NUMBER DAPDETPRE N,1 N SCREEN W
SC: PREVIOUS NUMBER OF DETECTIONS OF ABUSE

DAPA_FACILITY_CODE DAPCODE C,5 N SCREEN W
SC: UNIT IDENTIFICATION CODE OF THE FACILITY CONDUCTING THE SCREENING

DAPA_FACILITY_STAFF_NUMBER DAPSTAFNUM N,10 N SCREEN W
SC: THE STAFF IDENTIFICATION NUMBER OF THE FACILITY STAFF MEMBER

DAPA_NAME_OF_ADVISOR DAPADVNAM C,45 Y DAPA E
SC: NMAE/RANK OF THE COMMAND'S DRUG/ALCOHOL PROGRAM ADVISOR

DAPA_PHONE DAPPHO N,12 N DAPA E
SC: THE DAPA'S PHONE NUMBER

DAPA_PREVIOUS_TOXOCOLOGY_IND DAPPRETX L N SCREEN W
SC: INDICATES IF PREVIOUS TOXOCOLOGY DONE ON CLIENT

DAPA_REFERRAL_AGENCY DAPREFAGC C,50 N SCREEN W
SC: NAME OF THE AGENCY MAKING THE REFERRAL

DAPA_REFERRAL_CONTACT_NAME DAPREFNAM C,45 N SCREEN W
SC: NAME/RANK/TITLE OF THE PERSON MAKING THE REFERRAL

DAPA_REFERRAL_PHONE DAPREFPHO N,12 N SCREEN W
SC: PHONE NUMBER OF THE REFERRING AGENCY/PERSON

DAPA_REFERRAL_TYPE_CODE DAPREFTYP N,1 N SCREEN W
SC: NUMERIC CODE IDENTIFYING TYPE OF REFERRAL TO DAPA

Long Comment :
REFERRAL TYPE CODES:

1 - CAAC
2 - SELF
3 - ER/DETOX/TX
4 - FAMILY
5 - COMMAND UNIT
6 - DAPA
7 - CHAPLAIN
8 - MEDICAL OFFICER
9 - OTHER

DAPA_SCREEN_CLIENT_SIGNATURE_IND DAPCLISIG L N SCREEN W
SC: INDICATES IF THE CLIENT'S SIGNATURE WAS OBTAINED ON SCREENING FORM

DAPA_SCREEN_COUNSELOR_NAME DAPCOUNAM C,50 N SCREEN W
SC: NAME/RANK/TITLE OF THE SCREENING COUNSELOR

DAPA_SCREEN_DATE DAPSCRNDT D Y SCREEN W
SC: DATE OF THE CLIENT SCREENING

DAPA_SCREEN_PROGRAM_CODE DAPSCRNPRO C,1 N SCREEN W
SC: PROGRAM CODES: A - ALCOHOL D - DRUG O - OBESITY

DAPA_SCRN_COUNSEL_SIGNATURE_IND DAPCOUSIG L N SCREEN W
SC: INDICATES IF THE SCREENIG COUNSELOR'S SIGNATURE WAS OBTAINED

MEMBER_CLIENT_NUMBER MBRCLINUM N,7 Y MEMBER E
SC: THE CASE NUMBER ASSIGNED TO A SPECIFIC MEMBER FOR TRACKING PURPOSES

Long Comment :
MEMBER_CLIENT_NUMBER IS THE SAME AS DAPA_CLIENT_NUMBER. THIS NUMBER IS USED FOR TRACKING A SPECIFIC MEMBER'S CASE AND FOR RECORD TRACKING PURPOSES. A CLIENT_NUMBER IS USED INSTEAD OF THE MEMBER'S SOCIAL SECURITY NUMBER FOR REASONS OF CONFIDENTIALITY.

MEMBER_DIVISION_ASSIGNED MBR DIV C,15 N MEMBER E
SC: THE DIVISION TO WHICH THE MEMBER IS ASSIGNED

MEMBER_SOCIAL_SECURITY_NUMBER MBRSSN N,12 Y MEMBER E
SC: MEMBER'S SOCIAL SECURITY NUMBER FOR RECORD PURPOSES

MEMBER_WORKCENTER MBRWKCTR C,6 N MEMBER E
SC: THE WORKCENTER TO WHICH THE MEMBER IS ASSIGNED

MEMBER_WORKCENTER_PHONE_NUMBER MBRPHON N,5 N MEMBER E
SC: PHONE NUMBER OF THE MEMBER'S WORKCENTER

REFER_CLIENT_ATTITUDE_REMARKS REFCLIATT C,120 N REFERRAL W
SC: DESCRIPTION OF THE CLIENT'S ATTITUDE/BEHAVIOR SINCE REPORTING ABOARD

REFER_CLIENT_COMMAND REFCLICOM C,50 N REFERRAL W
SC: NAME OF THE COMMAND TO WHICH THE CLIENT IS ASSIGNED

REFER_CLIENT_COMMAND_UIC REFCLIUIC N,7 N REFERRAL W
SC: UNIT IDENTIFICATION CODE OF THE CLIENT'S COMMAND

REFER_CLIENT_DAPA_COMMENTS REFCLIDAPCM C,120 N REFERRAL W
SC: COMMENTS BY THE CLIENT'S DAPA

REFER_CLIENT_INFORMATION_IND REFCLIINF L N REFERRAL W
SC: INDICATES IF REQUISITE CLIENT MILITARY/PERSONAL INFO IS PROVIDED

REFER_CLIENT_LEADERSHIP_CMNT REFCLILEDCM C,120 N REFERRAL W
SC: COMMENTS CONCERNING THE CLIENT'S LEADERSHIP ABILITY ASSESSMENT

REFER_CLIENT_LEADERSHIP_CODE REFCLILED N,1 N REFERRAL W
SC: CODE TO IDENTIFY THE CLIENT'S ASSESSED LEADERSHIP ABILITY

Long Comment :
CLIENT LEADERSHIP ABILITY CODES:
1 - POSITIVE LEADER
2 - POTENTIAL LEADER
3 - FOLLOWER
4 - ANTI-NAVY
5 - ANTI-SOCIAL

REFER_CLIENT_MED_DOCUMENTS_IND REFCLIMED L N REFERRAL W

SC: INDICATES IF PERTINENT MEDICAL DOCUMENTATION WAS DISCUSSED/INCLUDED

REFER_CLIENT_NUMBER REFCLIENTNA C,50 Y REFERRAL W
SC: NAME/RANK/TITLE OF CLIENT BEING REFERRED TO CAAC

REFER_CLIENT_PERFORMANCE_CODE REFCLIPERCO C,1 N REFERRAL W
SC: CLIENT'S PERFORMANCE COMPARED WITH OTHERS OF EQUAL RANK/RATE

Long Comment :
MILITARY/PROFESSIONAL PERFORMANCE COMPARED TO OTHERS OF EQUAL
RATE/RANK:

A - ABOVE OTHERS
E - EQUAL TO OTHERS
B - BELOW OTHERS

REFER_CLIENT_PERFORMANCE_COMMENT REFPERCMT C,120 N REFERRAL W
SC: COMENTS CONCERNING THE CLIENT'S MILITARY/PROFESSIOAL PERFORMANCE

REFER_CLIENT_PERFORMANCE_TYPE REFERPERTYP C,1 N REFERRAL W
SC: PERFORMANCE TYPES: P: PROFESSIONAL, M: MILITARY

REFER_CLIENT_PERSONAL_TRAIT_CMNT REFCLITRACM C,120 N REFERRAL W
SC: COMMENT CONCERNING THE SPECIFIED CLIENT PERSONAL TRAIT

REFER_CLIENT_PERSONAL_TRAIT_CODE REFCLITRA N,2 N REFERRAL W
SC: IDENTIFIES VARIOUS CLIENT PERSONAL TRAITS

Long Comment :
CLIENT PERSONAL TRAIT CODES:
1 - HABIT OF BEING LATE
2 - ACCEPTS AUTHORITY WELL
3 - OBEYS MILITARY CONDUCT AND DRESS CODES
4 - ACTS IMPULSEIVELY
5 - APPEARS ANXIOUS, HOSTILE OR DEPRESSED
6 - APPEARS TO USE ALCOHOL/DRUGS EXCESSIVELY
7 - USES DRUGS/ALCOHOL ON DUTY
8 - APPEARS TO EAT EXCESSIVELY
9 - HAS KNOWN FAMILY/PERSONAL PROBLEMS
10 - OTHER AS SPECIFIED

REFER_CLIENT_PERSONAL_TRAIT_IND REFCLITRAIN L N REFERRAL W
SC: INDICATES IF THE CLIENT EXHIBITS THE SPECIFIED PERSONAL TRAIT

REFER_CLIENT_PREV_TREATMENT_CODE REFCLIPREVT N,1 N REFERRAL W
SC: CODE TO IDENTIFY TYPE OF TREATMENT (NADSAP,ARC,ETC)

Long Comment :
PREVIOUS TREATMENT CODES:
1 - NADSAP
2 - CAAC
3 - ARC
4-9 OTHERS AS SPECIFIED

REFER_CLIENT_PREV_TREATMENT_DATE REFCLIPREDT D N REFERRAL W
SC: DATE OF COMPLETION OF SPECIFIED PREVIOUS TREATMENT

REFER_CLIENT_PREV_TREATMENT_IND REFCLIPRETR L N REFERRAL W
SC: INDICATES IF THE CLIENT HAS RECEIVED PREVIOUS TREATMENT

REFER_CLIENT_RELATIONS_CODE REFCLIREL C,1 N REFERRAL W
SC: CODE TO DESCRIBE THE RELATION FOR THE SPECIFIED RELATION TYPE

Long Comment :
A DESCRIPTION OF CLIENT RELATIONS WITH VARIOUS RELATION TYPES:
W - WELL
F - FAIR
P - POOR

REFER_CLIENT_RELATIONS_COMMENTS REFRELCMT C,120 N REFERRAL W
SC: COMMENTS CONCERNING CLIENT RELATIONS WITH THE SPECIFIED RELATION TYPE

REFER_CLIENT_RELATIONS_TYPE_CODE REFCLIREL N,1 N REFERRAL W
SC: CODE TO IDENTIFY THE VARIOUS RELATIONS WITH THE CLIENT

Long Comment :
RELATIONS TYPE CODES:
1 - WITH OFFICERS
2 - WITH PETTY OFFICERS
3 - WITH NON-RATE PERSONS
4 - WITH PERSONS OF THE SAME RATE/RANK
5 - WITH PERSONS OF JUNIOR RATE/RANK
6 - WITH OTHERS AS SPECIFIED (WIFE/PARENTS/FRIENDS/AUTHORITIES)

REFER_CLIENT_RETENTION_RECOMMEND REFCLIRET C,50 N REFERRAL W
SC: NATURE OF THE CLIENT'S COMMAND RECOMMENDATION FOR RETENTION

Long Comment :
CHARACTERIZATION OF THE COMMAND'S RECOMMENDATIONS FOR RETENTION:

- RECOMMENDED FOR RETENTION
- NOT RECOMMENDED BECAUSE OF POOR PAST RECORD
- NOT RECOMMENDED BECAUSE OF POOR PRESENT RECORD
- NOT RECOMMENDED BECAUSE MEMBER HAS NO DESIRE FOR CONTINUED SERVICE

REFER_CLIENT_SUPERVISOR_COMMENTS REFCLISUPCM C,120 N REFERRAL W
SC: CLIENT'S SUPERVISOR REMARKS: HOW LONG, CLIENT EFFORTS, ETC

REFER_CLIENT_SUPERVISOR_NAME REFCLISUP C,50 N REFERRAL W
SC: NAME/RANK/TITLE OF THE CLIENT'S IMMEDIATE SUPERVISOR

REFER_CLIENT_TAD_INDICATOR REFCLITAD L N REFERRAL W
SC: INDICATES IF THE CLIENT IS ON TEMPORARY ADDITIONAL ORDERS

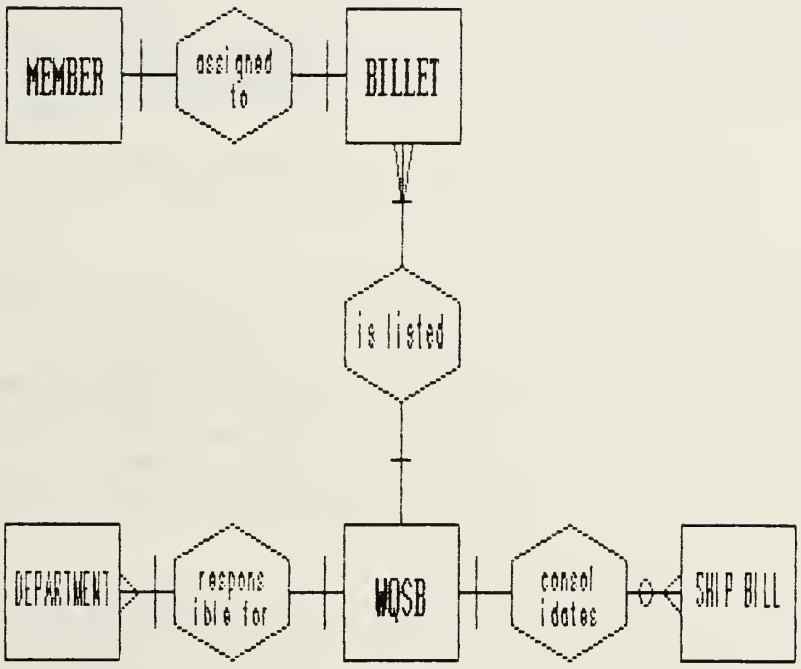
REFER_DAPA_COMMAND REFDAPCOM C,50 N REFERRAL W
SC: NAME OF THE REFERRING DAPA'S COMMAND

REFER_DAPA_NAME	REFDAPNME	C,50	N	REFERRAL	W
SC: NAME/RANK/TITLE OF THE DAPA MAKING THE REFERRAL					
REFER_DAPA_PHONE	REFDAPPHO	N,12	N	REFERRAL	W
SC: PHONE NUMBER OF THE DAPA MAKING THE REFERRAL					
REFER_DATE	REFDATE	D	Y	REFERRAL	W
SC: DATE OF THE SPECIFIC REFERRAL					
REFER_PRESENTING_PROBLEM	REFPREPRO	C,120	N	REFERRAL	W
SC: BRIEF NARRATIVE OF THE PROBLEM REQUIRING THE MEMBER'S REFERRAL TO CAAC					

APPENDIX B

WQSB ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the WATCH, QUARTER and STATION BILL function as discussed in Chapter IV.


MEMBER
assigned to
BILLET
is listed
DEPARTMENT
responsible for
WQSB
conceal dates
SHIP BILL

STRUCTURE REPORT FOR WQSB - VERSION 2.11

```
BILLET =
     BILLET_NUMBER
   + BILLET_MEMBER_NAME
   + BILLET_RANK_ACTUAL
   + BILLET_RANK_ASSIGNED
   + BILLET_RATE_ACTUAL
   + BILLET_RATE_ASSIGNED
   + BILLET_SOCIAL_SECURITY_NUMBER

DEPARTMENT =
     DEPARTMENT_NAME
   + DEPARTMENT_HEAD_NAME
   + DEPARTMENT_LOCATION
   + DEPARTMENT_PHONE

MEMBER =
     MEMBER_FIRST_NAME
   + MEMBER_LAST_NAME
   + MEMBER_DEPARTMENT_ASSIGNED
   + MEMBER_DIVISION_ASSIGNED
   + MEMBER_RANK
   + MEMBER_RATE
   + MEMBER_WORKCENTER_ASSIGNED

SHIP BILL =
     BILL_NAME
   + BILL_NUMBER
   + BILL_DUTY_SECTION
   + BILL_LAST_UPDATED_BY
   + BILL_LAST_UPDATED_DATE
   + BILL_MEMBER_NAME
   + BILL_SPECIAL_QUALIFICATIONS
   + BILL_STATION_DUTY_PROVIDE
   + BILL_STATION_NAME
   + BILL_STATION_NUMBER_ASSIGNED
   + BILL_TYPE_CODE

WQSB =
     WQSB_BILLET_NUMBER
   + WQSB_WATCH_TYPE_CODE
   + WQSB_BILL_NAME
   + WQSB_BILL_STATION_ASSIGNED
   + WQSB_BILL_STATION_PROVIDE
   + WQSB_CONDITION_I
   + WQSB_CONDITION_TYPE_CODE
   + WQSB_DIVISION
   + WQSB_LAST_UPDATED_BY_NAME
   + WQSB_LAST_UPDATED_DATE
   + WQSB_NUMBER_OF_BILLS
   + WQSB_RATE_ACTUAL
   + WQSB_RATE_ALLOWANCE
   + WQSB_RATE_COMPLIMENT
   + WQSB_REMARKS
```

ATTRIBUTE REPORT FOR WQSB - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
BILLET_MEMBER_NAME	BILNAM	C,45	N	BILLET E
SC: THE NAM OF THE MEMBER ASSIGNED TO A SPECIFIC BILLET IN THE COMMAND				
BILLET_NUMBER	BILNUM	C,10	Y	BILLET E
SC: A BILLET NUMBER IS ASSIGNED TO EACH MEMBER OF THE CREW				
BILLET_RANK_ACTUAL	BILRANKACT	C,4	N	BILLET E
SC: THE ACTUAL RANK OF THE MAMBER FILLING AN ASSIGNED BILLET				
BILLET_RANK_ASSIGNED	BILRANKASG	C,5	N	BILLET E
SC: RANK ASSIGNED BY BUPERS TO FILL A SPECIFIC BILLET (i.e., E-4, O-3)				

Long Comment :
THE BUREAU OF PERSONNEL (BUPERS) INDICATES THE RANK ASSIGNED FOR EACH BILLET IN EVERY SHIP'S SPECIFIC MANNING DOCUMENT. FOR EXAMPLE, THE BILLET FOR SENIOR RADIOMAN ONBOARD A SHIP MAY ASSIGNED TO A CHIEF PETTY OFFICER RADIOMAN (RMC). ASSIGNED RANK AND AACTUAL RANK MAY DIFFER DUE TO PERSONNEL RESOURCES AVAILABLE TO FILL BILLETS.

BILLET_RATE_ACTUAL	BILRATACT	C,5	N	BILLET E
SC: THE ACTUAL RATE THAT IS FILLING THE ASSIGNED BILLET				

Long Comment :
BILLET_RATE_ACTUAL INDICATES THE RATING OF THE MEMBER THAT IS CURRENTLY FILLING A SPECIFIC BILLET. FOR EXAMPLE, A SPECIFIC BILLET MAY HAVE AN ELCTRONICS TECHNICIAN (ET) ASSIGNED. THIS MAY BECOME IMPORTANT WHEN THE RATE ASSIGNED AND THE ACTUAL RATE ARE NOT THE SAME. THE COMMAND MUST ENSURE THAT EQUIVALENT QUALIFICATIONS ARE HELD BY THE MEMBER FILLING A SPECIFIC RATE.

BILLET_RATE_ASSIGNED	BILRATASG	C,15	N	BILLET E
SC: THE ASSIGNED RATE TO FILL A SPECIFIC BILLET IN THE SHIP				

Long Comment :
BILLET_RATE_ASSIGNED AND BILLET_RATE_ACTUAL MAY NOT BE THE SAME. FOR EXAMPLE, THE MANNING DOCUMENT MAY REQUIRE AN ENGINEMAN FOR A SPECIFIC BILLET; BUT THAT BILLET IS FILLED BY A QUALIFIED MACHINIST MATE.

BILLET_SOCIAL_SECURITY_NUMBER	BILSSN	N,12	N	BILLET E
SC: THE SOCAIL SECURITY NUMBER OF THE MEMBER FILLING A SPECIFIC BILLET				
BILL_DUTY_SECTION	BILDTYSEC	N,1	N	SHIP BIL E
SC: STATIONS, AS ASSIGNED BY DUTY SECTION, MUST BE SPECIFIED				

Long Comment :
INPORT STATION ASSIGNMENTS, FOR EXAMPLE MUST BE ASSIGNED, AND CAN BE ASSIGNED ON A ROTATIONAL BASIS BY DUTY SECTION. THE FOLLOWING ILLUS TRATES THIS CONCEPT:

INPORT DUTY SECTION NUMBER

	ONE	TWO	THREE	FOUR
STATION				
DUTY DEPT HEAD				
DUTY CORPSMAN				
DUTY GUNNER				
DUTY MACHINIST				
DUTY WELDER				
DUTY YEOMAN				

BILL_LAST_UPDATED_BY BILUPDTNAM C,25 N SHIP BIL E
SC: NAME/RANK OF THE PERSON WHO LAST UPDATED THE SPECIFIED BILL

BILL_LAST_UPDATED_DATE BILDT D N SHIP BIL E
SC: DATE WHEN THE BILL WAS LAST UPDATED/REVIEWED/APPROVED

Long Comment :
SHIP'S BILLS HAVE A REQUISITE REVIEW/APPROVAL PERIODICITY
DEPENDING ON THE FORMAT OF THEIR PROMULGATION:
INSTRUCTIONS: ANNUAL/RELIEF OF COMMANDING OFFICER/AS NECESSARY
NOTICES: ANNUAL/THE PERIOD SPECIFIED ON THE NOTICE COVER PAGE
RELIEF OF THE COMMANDING OFFICER
NOTES: ANNUALLY/THE SPECIFIED PERIOD ON THE COVER OF THE NOTE

BILL_MEMBER_NAME BILMEMNAM C,25 N SHIP BIL E
SC: THE NAME OF THE MEMBER ASSIGNED TO A SPECIFIED STATION, IF NECESSARY

BILL_NAME BILNAM C,45 Y SHIP BIL E
SC: THE NAME OF THE SPECIFIEC BILL (ABANDON SHIP, AVIATION, ETC)

Long Comment :
THE SHIP'S BILL NAME WILL BE REFLECTED ON THE WATCH, QUARTER AND
STATION BILL (WQSB) IN THE FOLLOWING FORMAT: STATION/PROVIDE
THE SPECIFIC STATIONS AND DUTIES COME FROM THE FOLLOWING BILLS.
THE LIST IS REPRESENTATIVE (FROM THE SHIP'S ORGANIZATION / REGULATION
MANUAL - SORM), AND NOT COMPLETE

ADMINISTRATIVE	OPERATIONAL
BERTHING AND LOCKER	LIFEBOAT BILL
SECURITY BILL	COLD WEATHER
VISIT SHIP	UNDERWAY REPLENISHMENT
GENERAL VISITING	RESCUE AND ASSISSTANCE
UNIT SECURITY	EMERGENCY TOWING
SECURITY WATCH	FLIGHT OPERATIONS
PERSONNEL RECALL	SEA AND ANCHOR

EMERGENCY	SPECIAL
MAN OVERBOARD	ANTI-SNEAK/SWIMMER ATTACK
GENERAL EMERGENCY	CIVILIAN EVACUATION
AIRCRAFT CRASH/RESCUE	PRISONERS OF WAR

BILL_NUMBER BILNUM N,6 Y SHIP BIL E
SC: THE SSIC NUMBER FROM THE SSIC MANUAL FOR FILING/TRACKING PURPOSES

BILL_SPECIAL_QUALIFICATIONS BILSPECQUAL C,50 N SHIP BIL E
SC: SPECIAL QUALIFICATIONS,AS REQUIRED FOR A SPECIFIED STATION (I.E.DIVER)

BILL_STATION_DUTY_PROVIDE BILSTAPRO C,25 N SHIP BIL E
SC: THE SPECIFIC DUTIES ASSIGNED TO A GIVEN STATION (SEE COMMENTS)

Long Comment :
A GIVEN STATION, FOR EXAMPLE A FIRE STATION, HAS SEVERAL SPECIFIC DUTIES TO BE ASSIGNED:
PLUGMAN/NOZZLEMAN/HOSEHANDLER/RUNNER-MESSENGER/PHONETALKER, ETC

AN UNDERWAY REPLENISHMENT STATION HAS SEVERAL SPECIFIC DUTIES:
RIG CAPTAIN/SAFETY OFFICER/LINEHANDLERS/PHONETALKER/RIG ASSISSTANT SIGNALMAN/GUNNER/CORPSMAN, ETC

BILL_STATION_NAME BILSTA C,25 N SHIP BIL E
SC: EACH BILL SPECIFIES STATIONS THAT MUST BE MANNED

BILL_STATION_NUMBER_ASSIGNED BILSTANUM N,2 N SHIP BIL E
SC: VARIOUS BILLS REQUIRE A MINIMUM/MAXIMUM NUMBER OF PERSONNEL ASSIGNED

Long Comment :
SOME SHIP'S BILLS REQUIRE THAT SPECIFIC STATIONS HAVE A MINIMUM/MAXIMUM NUMBER OF PERSONNEL ASSIGNED FOR SAFETY PURPOSES. AS AN EXAMPLE, UNDERWAY REPLENISHMENT STATIONS REQUIRE A MINIMUM OF 15 LINEHANDLERS, HOWEVER A PERSONNEL TRANSFER STATION (TRANSFER BY HIGHWIRE) REQUIRES A MINIMUM OF 25 LINEHANDLERS.

BILL_TYPE_CODE BILLTYP C,1 N SHIP BIL E
SC: BILL TYPES: A-ADMIN, O-OPERATIONAL, S-SPECIAL, E-EMERGENCY

DEPARTMENT_HEAD_NAME DEPTHDNAM C,45 N DEPT E
SC: NAME OF THE OFFICER ASSIGNED AS HEAD OF DEPARTMENT (DEPT HEAD)

DEPARTMENT_LOCATION DEPTLOC C,25 N DEPT E
SC: LOCATION OF THE DEPARTMENTAL OFFICE

DEPARTMENT_NAME DEPTNAM C,25 Y DEPT E
SC: NAME OF A SPECIFIC DEPARTMENT

DEPARTMENT_PHONE DEPTPHON N,7 N DEPT E
SC: PHONE NUMBER OF THE DEPARTMENT OFFICE

MEMBER_DEPARTMENT_ASSIGNED MBRDEPT C,15 N MEMBER E
SC: NAME OF THE DEPARTMENT TOWHICH THE MEMBER IS ASSIGNED

MEMBER_DIVISION_ASSIGNED MBR DIV C,15 N MEMBER E
SC: THE DIVISION TO WHICH A SPECIFIC MEMEBR IS ASSIGNED

MEMBER_FIRST_NAME MBRFIRNAM C,25 Y MEMBER E
SC: FIRST NAME OF A MEMBER ASSIGNED TO A BILLET

MEMBER_LAST_NAME MBRLASNAM C,25 Y MEMBER E
SC: LAST NAME OF THE MEMBER ASSSIGNED TO A BILLET

MEMBER_RANK MBRRANK C,4 N MEMBER E
SC: THE MEMBER'S ACTUAL RANK (i.e., E-4, E-3, O-2)

MEMBER_RATE MBRRATE C,25 N MEMBER E
SC: THE MEMBER'S ACTUAL RATE (i.e., BM, MM, ET)

MEMBER_WORKCENTER_ASSIGNED MBRWKCTR C,5 N MEMBER E
SC: THE WORKCENTER TO WHICH THE MEMBER IS ASSIGNED IN THE COMMAND

WQSB_BILLET_NUMBER WQSBBILNUM N,12 Y WQSB E
SC: SHIP'S BILLETS ARE ASSIGNED BY NUMBER SEQUENCE FOR TRACKING/REPORTING

WQSB_BILL_NAME WQSBBILNAM C,25 N WQSB E
SC: THE SPECIFIC NAME OF A SHIP'S BILL COMPRISING THE WQSB

Long Comment :
THE WATCH, QUARTER AND STATION BILL IS THE SINGULAR DOCUMENT THAT SUMMARIZES STATION ASSIGNMENTS AND DUTIES FOR MEMBERS OF THE CREW. EACH SHIP'S BILL IS PROMULGATED SEPERATELY BY VARIOUS DEPARTMENTS WITHIN THE COMMAND. ONCE THE BILLS ARE APPROVED, THE REQUISITE STATIONS/DUTIES ARE IDENTIFIED AND ASSIGNED TO SPECIFIC MEMBERS OF THE CREW, EITHER BY DEPARTMENT OR BY DIVISION.

FOR EXAMPLE, THE BOAT OFFICER PROMULGATES THE LIFEBOAT AND BOAT BILL, ASSIGNING MEMBERS BY NAME TO EACH SEAT IN THE SHIP'S LIFEBOATS/RAFTS. THE BOAT BILL REQUIRES A GUNNER FROM WEAPONS DEPT, A CORPSMAN FROM MEDICAL DEPT, A BOAT ENGINEER FROM ENGINEERING DEPT AND VARIOUS OTHER STATIONS THAT CAN BE FILLED FROM ANY DEPT/DIVISION.

BILL REPEATING GROUP:
WQSB_BILL_NAME
WQSB_BILL_STATION_ASSIGNED
WQSB_BILL_STATION_PROVIDE

WQSB_BILL_STATION_ASSIGNED WQSBBILLSTA C,25 N WQSB E
SC: THE STATION SPECIFIED BY A SHIP'S BILL TO WHICH THE MEMBER IS ASSIGNED

WQSB_BILL_STATION_PROVIDE WQSBBILLSTA C,25 N WQSB E
SC: STATION DUTIES ASSIGNED TO A MEMBER AS SPECIFIED BY A SHIP'S BILL

WQSB_CONDITION_I WQSBCON1 C,25 N WQSB E
SC: THE MEMBER'S ASSIGNED STATION FOR CONDITION I (GENERAL QUARTERS)

WQSB_CONDITION_TYPE_CODE WQSBCONDTYP N,1 N WQSB E
SC: SPECIFIES THE WATCH CONDITION (CONDITION 1,2,3 OR 4)

WQSB_DIVISION WQSBDIV C,25 N WQSB E
SC: DIVISION ASSIGNMENTS FOR THE WATCH,QUARTER & STATIO BILL (WQSB)

WQSB_LAST_UPDATED_BY_NAME WQSBUPNAM C,45 N WQSB E
SC: NAME/RANK/TITLE OF THE LAST PERSON TO UPDATE THE WQSB

WQSB_LAST_UPDATED_DATE	WQSBDT	D	N	WQSB	E
SC: DATE WHEN WQSB WAS LAST UPDATED					
WQSB_NUMBER_OF_BILLS	WQSBNUMBILL	N,2	N	WQSB	E
SC: INDICATES A REPEATING GROUP					
WQSB_RATE_ACTUAL	WQSBRATACT	N,2	N	WQSB	E
SC: THE ACTUAL NUMBER OF THE SPECIFIED RATE ONBOARD					
WQSB_RATE_ALLOWANCE	WQSBRATALW	N,2	N	WQSB	E
SC: THE NUMBER OF PERSONNEL OF THE SPECIFIED RATE ALLOWED BY NMPC					
WQSB_RATE_COMPLIMENT	WQSBRATCMP	N,2	N	WQSB	E
SC: THE NUMBER OF THE SPECIFIED RATE PLANNED FOR MAXIMUM MANNING					
WQSB_REMARKS	WQSBRMKS	C,25	N	WQSB	E
SC: COMMENTS PERTAINING TO THE ASSIGNED MEMBER (LEAVE/TAD/SIQ/UA,ETC)					
WQSB_WATCH_TYPE_CODE	WQSBWATCHTY	C,6	Y	WQSB	E
SC: SPECIFIES THE TYPE OF WATCH: ATSEA OR INPORT					

RULE REPORT FOR WQSB - VERSION 2.11

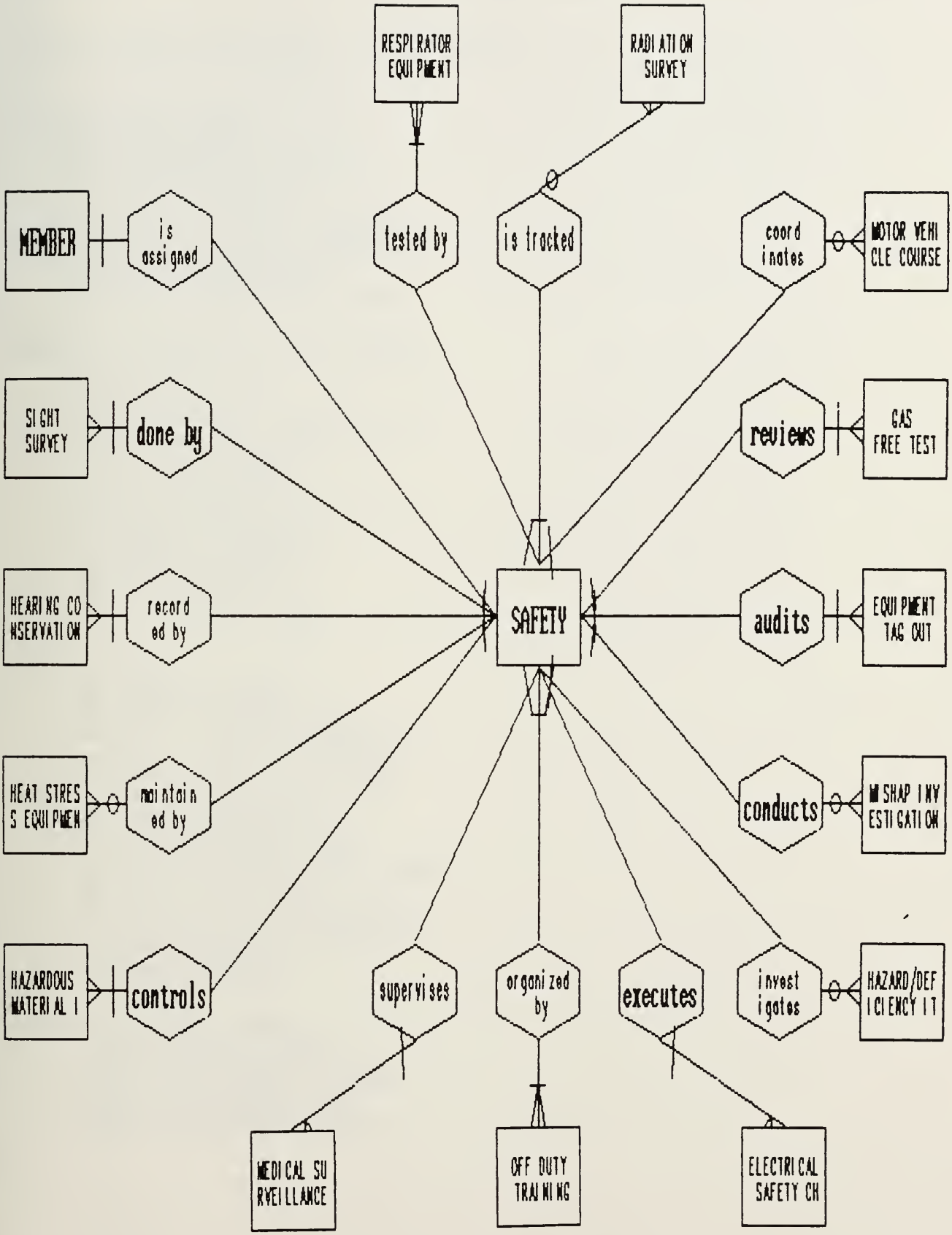
Rules for WQSB

IF WQSB_NUMBER_OF_BILLS
 > 1
THEN REPEAT WQSB BILL GROUP

APPENDIX C

SAFETY ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the SAFETY function as discussed in Chapter IV.


RESPIRATOR EQUIPMENT
RADIATION SURVEY
MEMBER
is assigned
tested by
is tracked
coordinates
MOTOR VEHICLE COURSE
SIGHT SURVEY
done by
reviews
GAS FREE TEST
HEARING CONSERVATION
recorded by
SAFETY
audits
EQUIPMENT TAG OUT
HEAT STRESS EQUIPMEN
maintained by
conducts
MISHAP INVESTIGATION
HAZARDOUS MATERIAL I
controls
supervises
organized by
executes
investigates
HAZARD/DEFICIENCY IT
MEDICAL SURVEILLANCE
OFF DUTY TRAINING
ELECTRICAL SAFETY CH

STRUCTURE REPORT FOR SAFETY - VERSION 2.11

```
ELECTRICAL SAFETY CHECKS =
      ELEC_CHECK_DATE
    + ELEC_CHECK_TYPE
    + ELEC_AUTHORIZATION_DATE
    + ELEC_AUTHORIZATION_NAME
    + ELEC_CHECK_DUE_DATE
    + ELEC_CHECK_ELECTRICIAN_NAME
    + ELEC_EQUIPMENT_WORKCENTER_NAME
    + ELEC_EQUIP_DIVISION_NAME
    + ELEC_EQUIP_ITEM_NAME
    + ELEC_EQUIP_ITEM_SERIAL_NUMBER

EQUIPMENT TAG OUT =
      TAG_DEPARTMENT_SEQUENCE_NUMBER
    + TAG_EQUIPMENT_NAME
    + TAG_TYPE_CODE
    + TAG_ACTION_TYPE_AUTHORITY_NAME
    + TAG_ACTION_TYPE_CODE
    + TAG_ACTION_TYPE_DATE
    + TAG_DEPARTMENT_NAME
    + TAG_DIVISION_NAME
    + TAG_FIRST_PERSON_NAME
    + TAG_NUMBER_OF_TAGS
    + TAG_SECOND_PERSON_NAME
    + TAG_SYSTEM_EFFECTED
    + TAG_TYPE_HAZARD
    + TAG_TYPE_INSTRUCTIONS

GAS FREE TEST =
      GAS_FREE_TEST_DATE
    + GAS_FREE_TEST_TIME
    + GAS_FREE_COMPARTMENT_NAME
    + GAS_FREE_COMPARTMENT_NUMBER
    + GAS_FREE_DESIGNATION_INDICATOR
    + GAS_FREE_ENGINEER_CERT_DATE
    + GAS_FREE_ENGINEER_DIVISION
    + GAS_FREE_ENGINEER_NAME
    + GAS_FREE_ENTRY_TYPE
    + GAS_FREE_EQUIPMENT_NAME
    + GAS_FREE_EQUIPMENT_SERIAL_NUMBER
    + GAS_FREE_TEST_ACTIONS
    + GAS_FREE_TEST_EXPIRATION_DATE
    + GAS_FREE_TEST_EXPIRATION_TIME
    + GAS_FREE_TEST_INSTRUCTIONS
    + GAS_FREE_TEST_TYPE
    + GAS_FREE_WORK_TYPE

HAZARD/DEFICIENCY ITEM =
      HAZARD_SEQUENCE_NUMBER
    + HAZARD_COMPARTMENT_DIVISION
    + HAZARD_COMPARTMENT_FUNCTION
    + HAZARD_COMPARTMENT_NAME
    + HAZARD_COMPARTMENT_NUMBER
```

```
   + HAZARD_COMPARTMENT_WORKCENTER
   + HAZARD_CSMP_ENTRY_INDICATOR
   + HAZARD_CSMP_NUMBER
   + HAZARD_IDENTIFICATION_CODE
   + HAZARD_INSPECTION_DATE
   + HAZARD_INSPECTOR_NAME
   + HAZARD_MISHAP_PROBABILITY_CODE
   + HAZARD_REPORT_DATE
   + HAZARD_REPORT_DEPARTMENT_CODE
   + HAZARD_REPORT_LOCATION
   + HAZARD_REPORT_ORIGINATOR_NAME
   + HAZARD_REPORT_TIME
   + HAZARD_RISK_ASSESSMENT_CODE
   + HAZARD_SEVERITY_CATEGORY_CODE

HAZARDOUS MATERIAL ITEM =
     HAZMAT_ITEM_NUMBER
   + HAZMAT_NSN
   + HAZMAT_CHEMICAL_NAME
   + HAZMAT_CHRONIC_HAZARD_IND
   + HAZMAT_CONTAINER_SIZE
   + HAZMAT_CONTAINER_TYPE
   + HAZMAT_DEPT_CODE
   + HAZMAT_ESTIMATED_USAGE
   + HAZMAT_LOCKER_LOCATION
   + HAZMAT_MANUFACTURER_DESCRIPTION
   + HAZMAT_METHOD_OF_APPLICATION
   + HAZMAT_QUANTITY_ON_HAND
   + HAZMAT_SHELF_LIFE
   + HAZMAT_SPECIFICATION_NUMBER
   + HAZMAT_TRADE_NAME
   + PERSONAL_PROTECTIVE_EQUIP_CODE
   + PERSONAL_PROTECTIVE_EQUIP_IND

HEARING CONSERVATION SURVEY =
     HEARING_COMPARTMENT_LOCATION
   + HEARING_SURVEY_LAST_DATE
   + HEARING_NOISE_SOURCE_CODE
   + HEARING_SURVEY_COMPARTMENT
   + HEARING_SURVEY_INDICATOR
   + HEARING_SURVEY_NAME
   + HEARING_SURVEY_NOISE_LEVEL
   + HEARING_SURVEY_ORGANIZATION

HEAT STRESS EQUIPMENT =
     HEAT_STRESS_EQUIPMENT_TYPE
   + HEAT_STRESS_EQUIP_CAL_DATE
   + HEAT_STRESS_EQUIP_RECAL_DATE
   + HEAT_STRESS_EQUIP_RECAL_IND
   + HEAT_STRESS_EQUIP_TYPE_QUANTITY

MEDICAL SURVEILLANCE EVAL =
     MED_SURVEIL_EVAL_DATE
   + MED_SURVEIL_TYPE
   + MED_SURVEIL_AUTH_COMMAND
   + MED_SURVEIL_COMMAND_DURATION
```

```
    + MED_SURVEIL_COMMAND_NAME
    + MED_SURVEIL_COMMAND_UNIT_ID_CODE
    + MED_SURVEIL_EVAL_AUTHORITY_NAME
    + MED_SURVEIL_EVAL_COMMENTS
    + MED_SURVEIL_EVAL_INDICATOR
    + MED_SURVEIL_JOB_DESCRIPTION
    + MED_SURVEIL_JOB_PROCESS
    + MED_SURVEIL_PROGRAM_INDICATOR

MEMBER =
      SAFETY_MEMBER_NAME
    + SAFETY_MEMBER_DIVISION
    + SAFETY_MEMBER_DIVISION_PHONE
    + SAFETY_MEMBER_SSN

MISHAP INVESTIGATION =
      MISHAP_DATE
    + MISHAP_TIME
    + MISHAP_CATEGORY
    + MISHAP_CAUSE
    + MISHAP_DEPARTMENT
    + MISHAP_DESCRIPTION
    + MISHAP_DIVISION
    + MISHAP_EXTERNAL_REPORT_IND
    + MISHAP_EXTERNAL_REPORT_NUMBER
    + MISHAP_LOCATION
    + MISHAP_PHOTO_INDICATOR
    + MISHAP_REPORT_DATE
    + MISHAP_REPORT_INDICATOR
    + MISHAP_REPORT_OFFICER
    + MISHAP_SEQUENCE_NUMBER
    + MISHAP_SUPERVISOR_NAME
    + MISHAP_WITNESS_DIVISION
    + MISHAP_WITNESS_NAME
    + MISHAP_WITNESS_NUMBER

MOTOR VEHICLE COURSE =
      MOTOR_VEH_TYPE
    + MOTOR_VEH_COORDINATOR_NAME
    + MOTOR_VEH_LICENSE_INDICATOR
    + MOTOR_VEH_SAFETY_COURSE_DATE
    + MOTOR_VEH_SAFETY_COURSE_DUE_DATE
    + MOTOR_VEH_SAFETY_COURSE_IND
    + MOTOR_VEH_SAFETY_COURSE_NAME

OFF DUTY TRAINING =
      OFF_DUTY_SAFETY_TYPE
    + OFF_DUTY_COORDINATOR_NAME
    + OFF_DUTY_TRAINING_TOPIC
    + OFF_DUTY_TRAINING_TOPIC_DATE
    + OFF_DUTY_TYPE_TRAINING_IND

RADIATION SURVEY =
      RADIATION_SURVEY_DATE
    + RADIATION_SURVEY_TYPE
    + RADIATION_PROTECT_MED_SCREEN_IND
```

```
   + RADIATION_SURVEY_NAME
   + RADIATION_SURVEY_ORGANIZATION
   + RADIATION_TYPE
   + RADIATION_TYPE_CODE

RESPIRATOR EQUIPMENT =
     EQUIP_FIT_TEST_DATE
   + RESPIRATOR_TYPE
   + EQUIPMENT_FIT_TEST_TYPE
   + RESPIRATOR_INDICATOR
   + RESPIRATOR_TYPE_DESCRIPTION
   + RESPIRATOR_USER_CONDITION_CODE
   + SCREEN_EXAM_DATE

SAFETY =
     SAFETY_OFFICER_NAME
   + SAFETY_OFFICER_LOCATION
   + SAFETY_OFFICER_PHONE

SIGHT SURVEY =
     SIGHT_SPACE_LOCATION
   + SIGHT_SURVEY_DATE
   + SIGHT_HAZARD_TYPE
   + SIGHT_SURVEY_COMMENTS
   + SIGHT_SURVEY_DUE_DATE
```

ATTRIBUTE REPORT FOR SAFETY - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
ELEC_AUTHORIZATION_DATE	ELECAUTHDAT	D	N	ELECSAFE E
SC: DATE THE SPECIFIED ITEM WAS AUTHORIZED FOR USE ONBOARD SHIP				
ELEC_AUTHORIZATION_NAME	ELECAUTHNAM	C,50	N	ELECSAFE E
SC: NAME/RANK OF THE PERSON AUTHORIZING THE ITEM FOR USE ONBOARD SHIP				
ELEC_CHECK_DATE	ELECCHECKDA	D	Y	ELECSAFE E
SC: DATE THE SPECIFIED ITEM WAS SAFETY CHECKED FOR USE ONBOARD SHIP				
ELEC_CHECK_DUE_DATE	ELECCHKDU	D	N	ELECSAFE E
SC: DATE FOR THE NEXT SAFETY CHECK OF THE SPECIFIED ITEM				
ELEC_CHECK_ELECTRICIAN_NAME	ELECCHECKNA	C,45	N	ELECSAFE E
SC: NAME/RANK OF PERSON SAFETY CHECKING THE SPECIFIED ITEM FOR USE				
ELEC_CHECK_TYPE	ELECCHKTYPE	C,50	Y	ELECSAFE E
SC: THE TYPE OF SAFETY CHECK CONDUCTED(SELECTED,RELATED,HABITABILITY,ETC)				
ELEC_EQUIPMENT_WORKCENTER_NAME	ELECEQUIPWC	C,25	N	ELECSAFE E
SC: THE WORKCENTER ASSIGNED RESPONSIBILITY FOR THE SPECIFIED ITEM				
ELEC_EQUIP_DIVISION_NAME	ELECEQUIPDI	C,25	N	ELECSAFE E
SC: DIVISION ASSIGNED RESPONSIBILITY FOR THE SPECIFIED ITEM				
ELEC_EQUIP_ITEM_NAME	ELECEQUIPNA	C,50	N	ELECSAFE E
SC: NAME/MAKE/MODEL FOR THE SPECIFIED EQUIPMENT ITEM				
ELEC_EQUIP_ITEM_SERIAL_NUMBER	ELECEQUIPSE	N,15	N	ELECSAFE E
SC: SERIAL NUMBER OF THE SPECIFIED ITEM				
EQUIPMENT_FIT_TEST_TYPE	EQUIPFITTES	C,25	N	RESPIRAT E
SC: THE TYPE OF RESPIRATOR FIT TEST				

Long Comment :
RESPIRATOR FIT TEST TYPES:
BANANA OIL
IRRITANTS
SACHARIN

EQUIP_FIT_TEST_DATE	EQFITTESTDT	D	Y	RESPIRAT E
SC: DATE OF THE SPECIFIED FIT TEST				
GAS_FREE_COMPARTMENT_NAME	GASFRCMPT	C,50	N	GAS FREE E
SC: BEING CERTIFIEDE COMPARTMENT				
GAS_FREE_COMPARTMENT_NUMBER	GASFRCMPTNU	N,12	N	GAS FREE E
SC: NUMBER DESIGNATION OF THE COMPARTMENT BEING CERTIFIED				
GAS_FREE_DESIGNATION_INDICATOR	GAFRDESIND	L	N	GAS FREE E
SC: INDICATES IF THE SPECIFIED MEMBER IS CURRENTLY DESIGNATED IN WRITING				

GAS_FREE_ENGINEER_CERT_DATE GASFRCERTDT D N GAS FREE E
SC: DATE THE SPECIFIED GAS FREE ENGINEER WAS CERTIFIED

Long Comment :
GAS FREE ENGINEERS MUST BE DESIGNATED IN WRITING BY THE COMMANDING OFFICER AS CERTIFIED TO PERFORM DUTIES AS GAS FREE ENGINEER.

GAS_FREE_ENGINEER_DIVISION GASFRENGDIV C,25 N GAS FREE E
SC: DIVISION TO WHICH THE SPECIFIED GAS FREE ENGINEER IS ASSIGNED

GAS_FREE_ENGINEER_NAME GASFRENGNAM C,25 N GAS FREE E
SC: NAME/RANK OF THE PERSON CERTIFIED AS GAS FREE ENGINEER

GAS_FREE_ENTRY_TYPE GASFRENTTYP C,50 N GAS FREE E
SC: BRIEF DESCRIPTION OF THE REQUIREMENTS FOR ENTRY TO THE EFFECTED SPACE

GAS_FREE_EQUIPMENT_NAME GASFREQUPNA C,50 N GAS FREE E
SC: NAME/MAKE/MODEL OF THE SPECIFIED GAS FREE TEST EQUIPMENT

GAS_FREE_EQUIPMENT_SERIAL_NUMBER GASFREQUIPS N,15 N GAS FREE E
SC: SERIAL NUMBER OF THE SPECIFIC TEST EQIPMENT ITEM

GAS_FREE_TEST_ACTIONS GASFRTESACT C,120 N GAS FREE E
SC: BRIEF DESCRIPTION OF THE ACTIONS TAKEN DURING THE SPECIFIED TEST

GAS_FREE_TEST_DATE GASFREEDT D Y GAS FREE E
SC: DATE OF THE GAS FREE TEST

GAS_FREE_TEST_EXPIRATION_DATE GASFREXPDT D N GAS FREE E
SC: DATE OF EXPIRATION OF THE GAS FREE/HOT WORK CERTIFICATION

GAS_FREE_TEST_EXPIRATION_TIME GASFREXPTIM N,4 N GAS FREE E
SC: TIME OF EXPIRATION OF THE GAS FREE/HOT WORK CERTIFICATIN

GAS_FREE_TEST_INSTRUCTIONS GASFRTESTIN C,120 N GAS FREE E
SC: INSTRUCTIONS PERTAINING TO THE SPECIFIED GAS FREE CERTIFICATION

GAS_FREE_TEST_TIME GASFREETIME T Y GAS FREE E
SC: TIME (IN 24 HOUR FORMAT) OF THE GAS FREE TEST

GAS_FREE_TEST_TYPE GASFRTESTTY C,25 N GAS FREE E
SC: TYPES OF TESTS ARE: HOT WORK AUTHORIZATION, GAS FREE CERTIFICATION

GAS_FREE_WORK_TYPE GASFRWKTYP C,50 N GAS FREE E
SC: BRIEF DESCRIPTION OF THE TYPE OF WORK BEING DONE IN THE EFFECTED SPACE

HAZARD_COMPARTMENT_DIVISION HAZCMPTDIV C,25 N HAZ/DEFC E
SC: DIVISION RESPONSIBLE FOR THE COMPARTMENT IDENTIFIED

HAZARD_COMPARTMENT_FUNCTION HAZCMPTFUN C,79 N HAZ/DEFC E
SC: A BRIEF DESCRIPTION OF THE FUNCTION OF THE COMPARTMENT

HAZARD_COMPARTMENT_NAME HAZCMPT C,45 N HAZ/DEFC E
SC: NAME OF THE COMPARTMENT WITH AN IDENTIFIED HAZARD

HAZARD_COMPARTMENT_NUMBER HAZCMPTNUM N,12 N HAZ/DEFC E
SC: THE COMPARTMENT NUMBER WITH THE IDENTIFIED HAZARD

HAZARD_COMPARTMENT_WORKCENTER HAZCMPTWC C,10 N HAZ/DEFC E
SC: THE WORKCENTER WITHIN A DIVISION RESPONSIBLE FOR THE COMPARTMENT

HAZARD_CSMP_ENTRY_INDICATOR HAZCSMPIND L N HAZ/DEFC E
SC: INDICATES REQUIRED ENTRY INTO THE CONSOLIDATED SHIPS MAINTENACE PROGRA

HAZARD_CSMP_NUMBER HAZCSMPNUM N,10 N HAZ/DEFC E
SC: THE CSMP NUMBER ASSIGNED TO THE HAZARD ITEM FOR TRACKING PURPOSES

HAZARD_IDENTIFICATION_CODE HAZID N,2 N HAZ/DEFC E
SC: IDENTIFICATION CODE NUMBER TO IDENTIFY THE SPECIFIC HAZARD/DEFICIENCY

Long Comment :
HAZARD/DEFICIENCY CODES:
1. ASBESTOS
2. FLAMMABLE MATERIALS
3. CORROSIVE MATERIALS
4. AEROSOL CONTAINERS
5. NOISE
6. RESPIRATORY PROTECTION
7. IONIZING/NON-IONIZING RADIATION
8. MACHINERY/TOOLS/LINES/BOATS/GROUND TACKLE
9. HEAT STRESS
10. TOXIC MATERIALS
11. OXIDIZING MATERIALS
12. COMPRESSED GASES
13. EYE HAZARDS
14. ELECTRICAL SAFETY
15. IMPROPER/MISSING TAG-OUTS
16. MISSING/DAMAGED PERSONAL PROTECTIVE EQUIPMENT
17-99. RESERVED FOR FUTURE USE

HAZARD_INSPECTION_DATE HAZINSPDT D N HAZ/DEFC E
SC: DATE OF THE LAST COMPARTMENT HAZARD/DEFICIENCY INSPECTION

HAZARD_INSPECTOR_NAME HAZINSPNAM C,25 N HAZ/DEFC E
SC: NAME AND TITLE OF THE INSPECTOR

HAZARD_MISHAP_PROBABILITY_CODE HAZMISPROB C,1 N HAZ/DEFC E
SC: CODE TO IDENTIFY THE PROBABILITY THE POTENTIAL FOR A RESULTING MISHAP

Long Comment :
MISHAP PROBABILITY: THE PROBABILITY THAT A HAZARD WILL RESULT IN A MISHAP BASED ON AN ASSESSMENT OF FACTORS SUCH AS LOCATION, EXPOSURE IN TERMS OF CYCLE HOURS OF OPERATION, AND EFFECTED POPULATION. MISHAP PROBABILITY SHALL BE ASSIGNED AN ARABIC LETTER CODE ACCORDING TO THE FOLLOWING CRITERIA:

A - LIKELY TO OCCUR IMMEDIATELY OR WITHIN A SHORT PERIOD OF TIME
B - PROBABLY WILL OCCUR IN TIME
C - MAY OCCUR IN TIME

D - UNLIKELY TO OCCUR

HAZARD_REPORT_DATE HAZREPDAT D N HAZ/DEFC E
SC: DATE THE HAZARD WAS FIRST DISCOVERED

HAZARD_REPORT_DEPARTMENT_CODE HAZREPDEP C,4 N HAZ/DEFC E
SC: IDENTIFIES THE DEPARTMENT RESPONSIBIITY FOR THE HAZARD ITEM

HAZARD_REPORT_LOCATION HAZREPLOC C,50 N HAZ/DEFC E
SC: DESCRIPTION OF THE LOCATION OF THE HAZARD BEING REPORTED

HAZARD_REPORT_ORIGINATOR_NAME HAZREPORIG C,50 N HAZ/DEFC E
SC: NAME/RANK/TITLE OF PERSON INITIATING HAZARD REPORT

HAZARD_REPORT_TIME HAZREPTIM N,4 N HAZ/DEFC E
SC: TIME THE HAZARD WAS FIRST DISCOVERED

HAZARD_RISK_ASSESSMENT_CODE HAZRAC N,1 N HAZ/DEFC E
SC: EACH IDENTIFIED HAZARD SHALL BE ASSIGNED A RISK ASSESSMENT CODE

Long Comment :
THE RISK ASSESSMENT CODE REPRESENTS THE DEGRE OF RISK ASSOCIATED WITH THE DEFICIENCY AND COMBINES THE ELEMENTS OF HAZARD SEVERITY AND MISHAP PROBABILITY. USING THE MATRIX SHOWN BELOW, THE RAC IS EXPRESSED AS A SINGLE NUMERICAL DIGIT THAT CAN BE USED TO HELP DETERMINE HAZARD ABATEMENT PRIORITIES.

HAZARD SEVERITY CATEGORY	MISHAP PROBABILITY A	B	C	D
1	1	1	2	3
2	1	2	3	4
3	2	3	4	5
4	3	4	5	5

RISK ASSESSMENT CODES: 1 - CRITICAL
2 - SERIOUS
3 - MODERATE
4 - MINOR
5 - NEGLIGIBLE

HAZARD_SEQUENCE_NUMBER HAZNUM N,5 Y HAZ/DEFC E
SC: SEQUENTIAL NUMBER FOR TRACKING PURPOSES (FORMAT: YYNNN)

HAZARD_SEVERITY_CATEGORY_CODE HAZSEVCAT N,1 N HAZ/DEFC E
SC: IDENTIFIES THE HAZARD SEVERITY CATEGORY OF THE NOTED ITEM

Long Comment :
THE HAZARD SEVERITY IS AN ASSESSMENT OF THE WORST POTENTIAL CONSEQUENC E, DEFINED BY DEGREE OF INJURY, OCCUPATIONAL ILLNESS OR PROPERTY DAMAGE WHICH IS LIKELY TO OCCUR AS A RESULT OF A DEFICIENCY. HAZARD SEVERITY CATEGORIES SHALL BE ASSIGNED A NUMERIC CODE ACCORDING TO THE FOLLOWING CRITERIA.

HAZARD SEVERITY CATEGORY:

1 - CATASTROPHIC: THE HAZARD MAY CAUSE DEATH, OR LOSS OF A FACILITY

2 - CRITICAL: MAY CAUSE SEVERE INJURY, SEVERE OCCUPATIONAL ILLNESS OR MAJOR PROPERTY DAMAGE

3 - MARGINAL: MAY CAUSE MINOR INJURY, MINOR OCCUPATIONAL ILLNESS OR MINOR PROPERTY DAMAGE

4 - NEGLIGIBLE: PROBABLY WOULD NOT EFFECT PERSONNEL SAFETY OR HEALTH, BUT IS IN VIOLATION OF A NAVOSH STANDARD

HAZMAT_CHEMICAL_NAME	HAZCHEMNAM	C,50	N	HAZMAT	E
SC: THE CHEMICAL NAME OF THE HAZARDOUS MATERIAL					
HAZMAT_CHRONIC_HAZARD_IND	HAZCRON	L	N	HAZMAT	E
SC: INDICATES IF MATERIAL HAS A HIGH INCIDENCE OF HAZARD					
HAZMAT_CONTAINER_SIZE	HAZCNTRSIZ	C,25	N	HAZMAT	E
SC: DESCRIBES MATERIAL'S CONTAINER SIZE					
HAZMAT_CONTAINER_TYPE	HAZCONTRTYP	C,25	N	HAZMAT	E
SC: DESCRIPTION OF THE MATERIAL CONTAINER (CAN, DRUM, BOX, ETC)					
HAZMAT_DEPT_CODE	HAZDEPT	C,5	N	HAZMAT	E
SC: THE DEPARTMENT RESPONSIBLE FOR THE SPECIFIED MATERIAL					
HAZMAT_ESTIMATED_USAGE	HAZESTUSG	C,25	N	HAZMAT	E
SC: AN ESTIMATE OF THE AMOUNT OF MATERIAL USED PER MONTH/QUARTER/YEAR					
HAZMAT_ITEM_NUMBER	HAZITEMNBR	N,5	Y	HAZMAT	E
SC: ASSIGNED SEQUENCE NUMBER FOR TRACKING PURPOSES					
HAZMAT_LOCKER_LOCATION	HAZLOC	C,75	N	HAZMAT	E
SC: LOCATION (COMPARTMENT NAME/NUMBER, LOCKER NUMBER)					
HAZMAT_MANUFACTURER_DESCRIPTION	HAZMANUF	C,75	N	HAZMAT	E
SC: MANUFACTURER'S NAME, ADDRESS, PHONE					
HAZMAT_METHOD_OF_APPLICATION	HAZAPPL	C,50	N	HAZMAT	E
SC: THE METHOD OF USING THE MATERIAL (SPRAY, POUR, PAINT, MIX, ETC)					
HAZMAT_NSN	HAZNSN	N,25	Y	HAZMAT	E
SC: THE NATIONAL STOCK NUMBER OF THE HAZARDOUS MATERIAL					
HAZMAT_QUANTITY_ON_HAND	HAZQOH	N,3	N	HAZMAT	E
SC: THE QUANTITY OF THE SPECIFIED MATERIAL AVAILABLE					
HAZMAT_SHELF_LIFE	HAZSHELF	N,2	N	HAZMAT	E
SC: SHELF LIFE IN MONTHS OF THE MATERIAL					
HAZMAT_SPECIFICATION_NUMBER	HAZSPEC	N,25	N	HAZMAT	E
SC: THE SPECIFICATION NUMBER OF THE MATERIAL					
HAZMAT_TRADE_NAME	HAZTRANAM	C,50	N	HAZMAT	E
SC: THE COMMERCIAL NAME OF THE HAZARDOUS MATERIAL					

HEARING_COMPARTMENT_LOCATION HEARCMPTLOC N,10 Y HEARING E
SC: NUMERIC DESRIPTION OF THE SURVEYED COMPARTMENT

HEARING_NOISE_SOURCE_CODE HEARSRC N,2 N HEARING E
SC: DSCRIPTION OF THE TYPE OF NOISE SOURCE IN THE SURVEY

Long Comment :
NOISE SOURCE CODES:
1. COMPRESSED AIR/GASES
2. MACHINERY
3. GRINDING
4. WEAPONS LAUNCH (GUNFIRE, MISSILE LAUNCH, ETC)
5. AIRCRAFT ENGINES
6. OTHER

HEARING_SURVEY_COMPARTMENT HEARSURCOMP C,25 N HEARING E
SC: NAME OF THE COMPARTMENT SUBJECT TO THE HEARING SURVEY

HEARING_SURVEY_INDICATOR HEARIND L N HEARING E
SC: INDICATES IF A HEARING SURVEY IS REQUIRED

HEARING_SURVEY_LAST_DATE HEARSURVLD D Y HEARING E
SC: DATE OF THE LAST HEARING SURVEY FOR THE LOCATION SPECIFIED

HEARING_SURVEY_NAME HEARSURVNAM C,25 N HEARING E
SC: NAME OF THE PERSON CONDUCTING THE LAST SURVEY

HEARING_SURVEY_NOISE_LEVEL HEARNOISLVL N,3 N HEARING E
SC: NOISE LEVEL (IN DB) OF THE SURVEYED SOURCE

HEARING_SURVEY_ORGANIZATION HEARSURVORG C,50 N HEARING E
SC: NAME OF THE ORGANIZATION CONDUCTING THE LAST SURVEY

HEAT_STRESS_EQUIPMENT_TYPE HEATSTREQTY C,50 Y HEAT STR E
SC: DESCRIPTION OF THE HEAT STRESS MONITORING EQUIPMENT TYPE

Long Comment :
EACH TYPE OF HEAT STRESS MONITORING EQUIPMENT HAS AN ASSOCIATED:
MANUFACTURER NAME
QUANTITY
CALIBRATION DATE
RECALIBRATION DUE DATE

HEAT_STRESS_EQUIP_CAL_DATE HESTREQCALD D Y HEAT STR E
SC: DATE THE SPECIFIED EQUIPMENT WAS LAST CALIBRATED

HEAT_STRESS_EQUIP_RECAL_DATE HESTREQCALD D N HEAT STR E
SC: DATE THE SPECIFIED EQUIPMENT IS DUE FOR RECALIBRATION

HEAT_STRESS_EQUIP_RECAL_IND HESTRRECALI L N HEAT STR E
SC: INDICAES IF THE SPECIFIED EQUIPMENT REQUIRES CALIBRATION

HEAT_STRESS_EQUIP_TYPE_QUANTITY HEATSTREQQT C,25 N HEAT STR E

SC: THE QUANTITY OF SPECIFIED HEAT STRESS EQUIPMENT

MED_SURVEIL_AUTH_COMMAND MEDSURAUTHC C,50 N MEDSURV E
SC: NAME OF THE COMMAND OF THE REVIEWING AUTHORITY

MED_SURVEIL_COMMAND_DURATION MEDSURFMDUR C,50 N MEDSURV E
SC: DURATION OF HAZARD EXPOSURE BEGAN AT THE SPECIFIED COMMAND

MED_SURVEIL_COMMAND_NAME MEDSURCMDNA C,75 N MEDSURV E
SC: NAME OF THE COMMAND WHERE EXPOSURE TO MEDICAL HAZARD OCCURRED

MED_SURVEIL_COMMAND_UNIT_ID_CODE MEDSURUIC N,6 N MEDSURV E
SC: COMMAND'S UNIT IDENTIFICATION CODE WHERE HAZARD EXPOSURE OCCURRED

MED_SURVEIL_EVAL_AUTHORITY_NAME MEDSURAUTHN C,50 N MEDSURV E
SC: NAME/RANK/TITLE OF THE AUTHORITY REVIEWING THE MED SURV EVALUATION

MED_SURVEIL_EVAL_COMMENTS MEDSUREVALC C,120 N MEDSURV E
SC: REVIEWING AUTHORIY'S COMMENTS CONCERNING THE SPECIFIED EVALUATION

MED_SURVEIL_EVAL_DATE MEDSURVDT D Y MEDSURV E
SC: DATE WHEN THE SPECIFIED MEDICAL SURVEILLANCE EVALUATION WAS COMPLETED

MED_SURVEIL_EVAL_INDICATOR MEDSURVEVAL L N MEDSURV E
SC: INDICATES IF A SPECIFIED MEDICAL SURVEILLANCE EVALUATION IS COMPLETED

MED_SURVEIL_JOB_DESCRIPTION MEDSURJOB C,120 N MEDSURV E
SC: BRIEF DESCRIPTION OF THE MEMBER'S DUTIES WHEN EXPOSED TO HAZARD

Long Comment :
EXAMPLES OF JOB DESCRIPTIONS:
BOILER DIVISION LEADING PETTY OFFICER
GAS STATION EMPLOYEE
TOXIC WASTE MACHINERY OPERATOR

MED_SURVEIL_JOB_PROCESS MEDSURPRO C,120 N MEDSURV E
SC: BRIEF DESCRIPTION OF THE PROCESSES WHERE MEMBER WAS EXPOSED

Long Comment :
EXAMPLES OF JOB PROCESS DESCRIPTIONS:
ASBESTOS RIP OUT TEAM
BOILER INSPECTOR
HAZARDOUS WASTE QUALITY ASSURANCE SUPERVISOR

MED_SURVEIL_PROGRAM_INDICATOR MEDSURIND L N MEDSURV E
SC: INDICATES IF A MEMBER IS ELIGIBLE FOR THE MEDICAL SURVEILLANCE PROGRAM

MED_SURVEIL_TYPE MEDSURTYP C,50 Y MEDSURV E
SC: INDICATES THE TYPE OF MEDICAL SURVEILLANCE TO BE CONDUCTED

Long Comment :
TYPES OF SURVEILLANCE WITHIN THE MEDICAL SURVEILLANCE PROGRAM INCLUDE:

ASBESTOS

LEAD
CHROMATES
PCP's
OTHER AS SPECIFIED

MISHAP_CATEGORY MISCAT C,45 N MISHAP E
SC: GENERAL CATEGORY OF THE MISHAP (COLLISION, FLOODING, ETC)

Long Comment :
EXAMPLES OF MISHAP CATEGORIES
COLLISION
FLOODING
GROUNDING
ELECTRICAL SHOCK
DECK SEAMANSHIP
MAN OVERBOARD
CHEMICAL/TOXIC EXPOSURE
HEAT INJURY
AIRCRAFT/AVIATION
MATERIAL FAILURE
MACHINERY OPERATION
HEAVY WEATHER
SMALL BOATS
INJURY
CARGO HANDLING
EXPLOSION
ORDNANCE

MISHAP_CAUSE MISCAUSE C,120 N MISHAP E
SC: BRIEF DESCRIPTION OF THE CAUSE OF THE MISHAP

Long Comment :
EXAMPLE CAUSES FOR MISHAP:
OPERATOR ERROR
INSUFFICIENT TRAINING
MATERIAL FAILURE
IMPROPER EQUIPMENT

MISHAP_DATE MISDAT D Y MISHAP E
SC: DATE WHEN THE MISHAP OCCURRED

MISHAP_DEPARTMENT MISDEP C,4 N MISHAP E
SC: IDENTIFIES THE DEPARTMENT IN WHICH A MISHAP OCCURRED

MISHAP_DESCRIPTION MISDESC C,120 N MISHAP E
SC: BRIEF DESCRIPTION (INCLUDE EXTENT OF INJURY AND/OR PROPERTY DAMAGE

MISHAP_DIVISION MISDIV C,6 N MISHAP E
SC: INDICATES THE DIVISION IN WHICH THE MISHAP OCCURRED

MISHAP_EXTERNAL_REPORT_IND MISEXTREP L N MISHAP E
SC: INDICATES IF AN EXTERNAL MISHAP REPORT MUST BE SENT FROM THE COMMAND

MISHAP_EXTERNAL_REPORT_NUMBER MISEXTREPNU N,12 N MISHAP E
SC: LETTER SERIAL NUMBER/MESSAGE DATE-TIME-GROUP OF THE EXTERNAL REPORT

MISHAP_LOCATION MISLOC C,120 N MISHAP E
SC: THOROUGH DESCRIPTION OF THE MISHAP LOCATION

Long Comment :
LOCATION DESCRIPTION SHOULD BE AS THOROUGH AS POSSIBLE:
1. COMPARTMENT NAME AND LOCATION IN COMPARTMENT IF APPLICABLE
2. FRAME NUMBER, DECK OR LEVEL, AND SIDE IF TOPSIDE
3. LOCATION ON PIER, OR DRYDOCK OR BUILDING IF OFF THE SHIP

MISHAP_PHOTO_INDICATOR MISPHOTO L N MISHAP E
SC: INDICATES IF PHOTOS WERE TAKEN (FOR INVESTIGATION/REVIEW)

MISHAP_REPORT_DATE MISREPDAT D N MISHAP E
SC: DATE THE MISHAP REPORT WAS SUBMITTED

MISHAP_REPORT_INDICATOR MISREPIND L N MISHAP E
SC: INDICATES IF A MISHAP REPORT HAS BEEN SUBMITTED

MISHAP_REPORT_OFFICER MISREPOFF C,50 N MISHAP E
SC: NAME AND RANK OF THE DIVISION OFFICER SUBMITTING THE MISHAP REPORT

MISHAP_SEQUENCE_NUMBER MISSEQ N,5 N MISHAP E
SC: SEQUENTIAL NUMBER FOR TRACKING PURPOSES (FORMAT:YYNNNN)

MISHAP_SUPERVISOR_NAME MISSUPNAM C,25 N MISHAP E
SC: NAME OF THE WORK SUPERVISOR AT THE TIME OF THE MISHAP

MISHAP_TIME MISTIM N,4 Y MISHAP E
SC: TIME OF THE MISHAP (24 HOUR FORMAT: HHMM)

MISHAP_WITNESS_DIVISION MISWITDIV C,6 N MISHAP E
SC: DIVISION THE WITNESS IS ASSIGNED TO

MISHAP_WITNESS_NAME MISWITNAM C,25 N MISHAP E
SC: NAME AND RANK OF THE MISHAP WITNESS

MISHAP_WITNESS_NUMBER MISWITNUM N,2 N MISHAP E
SC: IDENTIFIES THE NUMBER OF THE WITNESS TO THE MISHAP

MOTOR_VEH_COORDINATOR_NAME MVEHCOORDNA C,25 N MOTRVEH E
SC: NAME OF THE MOTOR VEHICLE SAFETY COORDINATOR

MOTOR_VEH_LICENSE_INDICATOR MVEHLICIND L N MOTRVEH E
SC: INDICATES IF AN OPERATOR'S LICENSE IS REQUIRED

MOTOR_VEH_SAFETY_COURSE_DATE MVEHSAFCRSD D N MOTRVEH E
SC: COMPLETION DATE OF A SPECIFIED MOTOR VEHICLE SAFETY COURSE

MOTOR_VEH_SAFETY_COURSE_DUE_DATE MVEHSAFCRSD D N MOTRVEH E
SC: SCHEDULED DATE FOR A SPECIFIED MOTOR VEHICLE SAFETY COURSE

MOTOR_VEH_SAFETY_COURSE_IND MVEHSAFCRSI L N MOTRVEH E

SC: INDICATES REQUIRED ATTENDANCE FOR A SPECIFIED SAFETY COURSE

MOTOR_VEH_SAFETY_COURSE_NAME MVEHSAFNAM C,50 N MOTRVEH E
SC: NAME OF A SPECIFIC SAFETY COURSE (E.G. MOTORCYCLE SAFETY)

MOTOR_VEH_TYPE MVEHTYP C,45 Y MOTRVEH E
SC: DESCRIPTION OG THE SPECIFIC TYPE OF VEHICLE (FORKLIFT, TRUCK,ETC)

OFF_DUTY_COORDINATOR_NAME COORDNAM C,25 N OFF DUTY E
SC: NAME OF THE OFF DUTY SAFETY PROGRAM COORDINATOR/SUPERVISOR

OFF_DUTY_SAFETY_TYPE OFFDTYTYP C,3 Y OFF DUTY E
SC: TYPES= REC:RECREATION, ATH:ATHLETICS, HOM:HOME, ALC:ALCOHOL

Long Comment :
TOPICS OFSAFETY FOR THE FOLLOWING OFF-DUTY SAFETY TYPES:

RECREATION:	HOME:
BICYCLING	CHILD SAFETY
WATER SPORTS	ELECTRICAL SAFETY
FIREARMS	FIRE SAFETY
JOGGING	POISON PREVENTION
PHYSICAL FITNESS	SLIPS AND FALLS
ATHLETICS:	ALCOHOL:
BASKETBALL	
FOOTBALL	
RAQUETBALL	
SOFTBALL	

OFF_DUTY_TRAINING_TOPIC OFFDTYTRNGT C,50 N OFF DUTY E
SC: THE NAME OF THE SPECIFIC TOPIC FOR A GIVEN TYPE OF SAFETY

OFF_DUTY_TRAINING_TOPIC_DATE OFFDTYTRNGT D N OFF DUTY E
SC: DATE THE LAST SPECIFIED TRAINING TOPIC WAS ATTENDED

OFF_DUTY_TYPE_TRAINING_IND OFFDTYTRNGI L N OFF DUTY E
SC: INDICATES IF TRAINING FOR A SPECIFIED TYPE OF SAFETY IS REQUIRED

PERSONAL_PROTECTIVE_EQUIP_CODE PERSPROEQIP C,1 N HAZMAT E
SC: INDICATES THE TYPE OF PROTECTIVE TO BE USED WITH MATERIAL

Long Comment :
PROTECTIVE EQUIPMENT CODES:
E - EYES

C - CLOTHING
G - GLOVES
R - RESPIRATORY

PERSONAL_PROTECTIVE_EQUIP_IND HAZPERSPROT L N HAZMAT E
SC: IS PERSONAL PROTECTIVE EQUIPMENT REQUIRED FOR USE/HANDLING

RADIATION_PROTECT_MED_SCREEN_IND RADMED SCRN L N RADSURV E
SC: INDICATES IF A MEDICAL SCREEN IS REQUIRED FOR A SPECIFIED RADIATION

RADIATION_SURVEY_DATE RADSURDAT D Y RADSURV E
SC: DATE OF THE LAST SPECIFIED SURVEY

Long Comment :
FOR EACH SURVEY DATE REPEAT ALL SURVEY ATTRIBUTES
(NAME, TYPE, ORGANIZATION, ETC)

RADIATION_SURVEY_NAME RADSURNAM C,50 N RADSURV E
SC: NAME, GRADE, TITLE OF THE PERSON CONDUCTING THE SURVEY

RADIATION_SURVEY_ORGANIZATION RADSURVORG C,45 N RADSURV E
SC: NAME OF THE ORGANIZATION CONDUCTING THE SPECIFIED SURVEY

RADIATION_SURVEY_TYPE RADSURTYP C,25 Y RADSURV E
SC: SURVEY TYPES SUCH AS PHOTO, MONITOR, PYHSICAL INSPECTION,ETC

RADIATION_TYPE RADTYP C,15 N RADSURV E
SC: THE TYPE OF RADIATION HAZARD: IONIZING OR NON-IONIZING

RADIATION_TYPE_CODE RADTYPCOD C,6 N RADSURV E
SC: SPECIFIES THE SUBTYPE OF A GIVEN RADIATION TYPE

Long Comment :
RADIATION TYPES AND SUB-TYPE CODES:
TYPE:
IONIZING

SUB-TYPES:	CODES
RADIOACTIVE	ION_RAD
X-RAY MACHINES	ION-XRA

TYPE:
NON-IONIZING

SUB-TYPES:	CODES:
RADIOFREQUENCY	NON-RFR
LASERS	NON-LAS
OTHER OPTICAL	NON-OPT

RESPIRATOR_INDICATOR RESPIND L N RESPIRAT E
SC: INDICATES MEMBER'S ELIGIBILITY FOR USE OF A RESPIRATOR

RESPIRATOR_TYPE RESPTYP C,40 Y RESPIRAT E
SC: DESCRIPTION OF THE TYPE OF RESPIRATOR TO BE USED

Long Comment :
RESPIRATOR TYPES INCLUDE:

AIR-PURIFYING (NON-POWERED)	AIR-PURIFYING (POWERED)
HOSE MASK (WITH BLOWER)	HOSE MASK (WITHOUT BLOWER)
AIR-LINE (DEMAND)	AIR-LINE (PRESSURE DEMAND)
AIR-LINE (CONTINUOUS FLOW)	SCBA (CLOSED CIRCUIT)
SCBA (OPEN CIRCUIT, DEMAND)	SCBA (OPEN CIRCUIT, PRESSURE DEMAND)

RESPIRATOR_TYPE_DESCRIPTION RESPTYDEC C,75 N RESPIRAT E
SC: DESCRIPTION OF THE SPECIFIC RESPIRATOR (COMPANY,SIZE,CARTRIDGES,ETC)

RESPIRATOR_USER_CONDITION_CODE RESPUSRCOND N,2 N RESPIRAT E
SC: CONDITION TO INDICATE PHYSICAL CONDITION OF THE POTENTIAL USER

Long Comment :
CONDITION CODES:
1. LUNG DISEAE
2. PERSISTENT COUGH
3. HEART TROUBLE
4. SHORTNESS OF BREATH
5. HISTORY OF FAINTING OR SEIZURE
6. HIGH BLOOD PRESSURE
7. DIABETES
8. FEAR OF TIGHT OR CLOSED SPACES
9. SENSATION OF SMOTHERING
10. HEAT EXHAUSTION OR HEAT STROKE
11. RUPTURED EAR DRUM
12. DEFECTIVE VISION
13. DEFECTIVE HEARING
14. CONTACT LENSES OR GLASSES
15. OTHER CONDITION THAT MIGHT INTERFERE WITH RESPIRATOR USE OR RESULT IN LIMITED WORK ABILITY
16. CURRENTLY TAKING MEDICATION

SAFETY_MEMBER_DIVISION SAFMBRDIV C,25 N MEMBER E
SC: THE DIVISION TO WHICH A MEMBER OF THE SAFETY PROGRAM IS ASSIGNED

SAFETY_MEMBER_DIVISION_PHONE SAFMBRDIVPH N,5 N MEMBER E
SC: THE PHONE NUMBER OF A MEMBER'S DIVISION OFFICE

SAFETY_MEMBER_NAME SAFMBRNAM C,45 Y MEMBER E
SC: THE NAME OF A MEMBER IN THE COMMAND'S SAFETY PROGRAM

Long Comment :
EVERY MEMBER OF THE CREW/COMMAND IS A MEMBER OF THE COMMAND'S SAFETY PROGRAM. THE SAFETY OFFICER IS REQUIRED TO TRACK EVERY MEMBER'S PARTICIPATION IN SAFETY TRAINING AND OTHER ASPECTS OF THE SAFETY PROGRAM AS NECESSARY (i.e., RESPIRATORY PROTECTION).

SAFETY_MEMBER_SSN SAFMBRSSN N,12 N MEMBER E
SC: THE SOCIAL SECURITY NUMBER OF A MEMBER IN THE SAFETY PROGRAM

SAFETY_OFFICER_LOCATION SAFLOCA C,25 N SAFETY E
SC: THE LOCATION OF THE COMMAND SAFETY OFFICE

SAFETY_OFFICER_NAME SAFOFFNAM C,50 Y SAFETY E
SC: THE NAME AND RANK OF THE COMMAND SAFETY OFFICER

SAFETY_OFFICER_PHONE SAFPHON N,5 N SAFETY E
SC: THE PHONE NUMBER OF THE SAFETY OFFICER'S OFFICE

SCREEN_EXAM_DATE SCREXDT D N RESPIRAT E
SC: DATE OF THE RESPIRATORY SCREENING EXAM

SIGHT_HAZARD_TYPE SIHAZTYPE C,50 N SITESURV E
SC: THE SOURCE OF A SIGHT HAZARD IN THE SPECIFIED SURVEY LOCATION

Long Comment :
EXAMPLES OF SIGHT HAZARDS INCLUDE:
MACHINERY
LASERS
SPRAYS
WELDING

SIGHT_SPACE_LOCATION SISURVLO C,25 Y SITESURV E
SC: LOCATION OF THE SIGHT SURVEY

Long Comment :
REPEAT SIGHT_SURVEY ATTRIBUTES FOR EACH SURVEY LOCATION

SIGHT_SURVEY_COMMENTS SISURVCT C,120 N SITESURV E
SC: REMARKS CONCERNING A SPECIFIC SIGHT SURVEY

SIGHT_SURVEY_DATE SISURVDT D Y SITESURV E
SC: DATE OF THE LAST ANNUAL SIGHT SURVEY

SIGHT_SURVEY_DUE_DATE SISURVDU D N SITESURV E
SC: DATE OF THE NEXT SIGHT SURVEY FOR A SPECIFIED LOCATION

TAG_ACTION_TYPE_AUTHORITY_NAME TAGACTAUTH C,50 N TAG OUT E
SC: NAME/RANK OF THE PERSON AUTHORIZED TO CONDUCT SPECIFIED ACTION

TAG_ACTION_TYPE_CODE TAGACTTYP C,1 N TAG OUT E
SC: ACTION TYPE CODES: I:INITIATE, R:REVIEW, C:CLEAR, A:AUDIT

TAG_ACTION_TYPE_DATE TAGACTDT D N TAG OUT E
SC: DATE OF THE LAST SPECIFIED ACTION (INITIATE,REVIEW,AUDIT,CLEAR)

TAG_DEPARTMENT_NAME TAGDEPT C,25 N TAG OUT E
SC: NAME OF THE DEPARTMENT RESPONSIBLE FOR THE TAG_OUT ACTION

TAG_DEPARTMENT_SEQUENCE_NUMBER TAGDEPNUM N,10 Y TAG OUT E
SC: DEPARTMENTAL TAG SEQUENCE NUMBER FOR TRACKING/AUDITING PURPOSES

TAG_DIVISION_NAME TAGDIV C,25 N TAG OUT E
SC: NAME OF THE DIVISION RESPONSIBLE FOR THE TAG-OUT ACTION

TAG_EQUIPMENT_NAME TAGEQUIPNAM C,50 Y TAG OUT E
SC: NOUN NAME OF THE EQUIPMENT BEING TAGGED

TAG_FIRST_PERSON_NAME TAGFIRNAM C,50 N TAG OUT E
SC: NAME/RANK OF THE PERSON AFFIXING THE SPECIFIED TAG

TAG_NUMBER_OF_TAGS TAGNUMTAG N,2 N TAG OUT E

SC: THE NUMBER OF TAGS ASSOCIATED WITH THE SPECIFIC DEPT NUMBER TAG ACTION

TAG_SECOND_PERSON_NAME TAGSECNAM C,50 N TAG OUT E
SC: NAME/RANK OF THE PERSON CHECKING THE SPECIFIED TAG

TAG_SYSTEM_EFFECTED TAGSYS C,75 N TAG OUT E
SC: NAME OF THE SPECIFIC SYSTEMS EFFECTED BY THE TAG ACTION

TAG_TYPE_CODE TAGTYP C,1 Y TAG OUT E
SC: TAG TYPES: C: CAUTION, D:DANGER

TAG_TYPE_HAZARD TAGHAZ C,120 N TAG OUT E
SC: HAZARDS ASSOCIATED WITH VIOLATIONS OF THE TAGS (SHOCK,FLOODING,ETC)

TAG_TYPE_INSTRUCTIONS TAGINST C,120 N TAG OUT E
SC: INSTRUCTIONS FOR ACTION NECESSARY BEFORE TAGS CAN BE CLEARED

RULE REPORT FOR SAFETY - VERSION 2.11

Rules for HEARING CONSERVATION SURVEY

IF NOISE_SOURCE_CODE
>= 1
THEN REPEAT SOURCE_CODE, NOISE_LEVL

Rules for MISHAP INVESTIGATION

IF MISHAP_SEQUENCE_NUMBER
> 0
THEN REPEAT ALL MISHAP ATTRIBUTES

IF MISHAP_WITNESS_NUMBER
>= 1
THEN REPEAT ALL WITNESS ATTRIBUTES

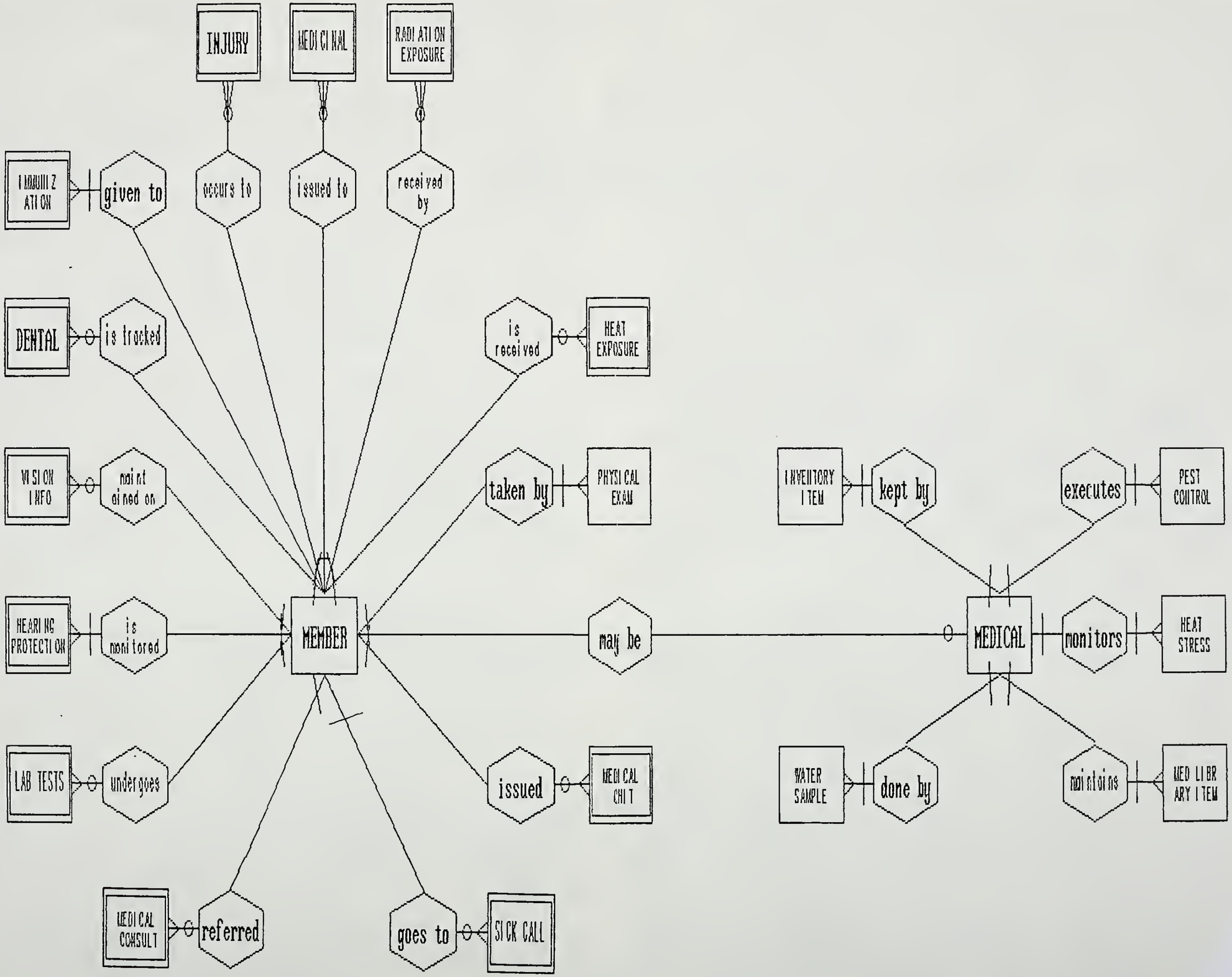
Rules for RESPIRATOR EQUIPMENT

IF RESPIRATOR_USER_CONDITION_CODE
>= 1
THEN REPEAT USER_CONDITION_CODE

APPENDIX D

MEDICAL ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the MEDICAL function as discussed in Chapter IV.


INJURY
MEDICINAL
RADIATION EXPOSURE
IMMUNIZATION
given to
occurs to
issued to
received by
DENTAL
is tracked
is received
HEAT EXPOSURE
VISION INFO
maintained on
taken by
PHYSICAL EXAM
INVENTORY ITEM
kept by
executes
PEST CONTROL
HEARING PROTECTION
is monitored
MEMBER
may be
MEDICAL
monitors
HEAT STRESS
LAB TESTS
undergoes
issued
MEDICAL CHIT
WATER SAMPLE
done by
maintains
MED LIBRARY ITEM
MEDICAL CONSULT
referred
goes to
SICK CALL

STRUCTURE REPORT FOR MEDICAL - VERSION 2.11

```
DENTAL =
     DENTAL_CLASSIFICATION_NUMBER
   + DENTAL_CLASS_PREVIOUS_NUMBER
   + DENTAL_EXAM_DUE_DATE
   + DENTAL_EXAM_LAST_DATE
   + DENTAL_FOLLOWUP_DATE
   + DENTAL_PANOGRAPH_DATE_ON_FILE
   + DENTAL_SURVEY_DATE
   + DENTAL_SURVEY_INDICATOR

HEARING PROTECTION =
     HEARING_AUDIOGRAM_LAST_DATE
   + HEARING_AUDIOGRAM_TYPE
   + HEARING_90_DAY_FOLLWUP_EXAM_DATE
   + HEARING_AUDIOGRAM_COMMENTS
   + HEARING_AUDIOGRAM_INDICATOR
   + HEARING_AUDIOGRAM_TYPE_DUE_DATE
   + HEARING_DOUBLE_PROTECTION_IND
   + HEARING_EAR_PLUG_ISSUE_DATE
   + HEARING_EAR_PLUG_SIZE_LEFT
   + HEARING_EAR_PLUG_SIZE_RIGHT
   + HEARING_EAR_PLUG_TYPE

HEAT EXPOSURE =
     HEAT_EXPOSURE_DATE
   + HEAT_EXPOSURE_TIME
   + HEAT_EXP_PHEL_EXPOSURE_TIME
   + HEAT_EXP_PHEL_COMMENTS
   + HEAT_EXP_PHEL_OPERATOR_NUMBER
   + HEAT_EXP_PHEL_RECOVERY_TIME

HEAT STRESS =
     HEAT_SURVEY_SAMPLE_DATE
   + HEAT_SURVEY_SAMPLE_LOCATION
   + HEAT_SURVEY_COMMENTS
   + HEAT_SURVEY_DRY_BULB_TEMP
   + HEAT_SURVEY_FUEL_PRESENT_IND
   + HEAT_SURVEY_GLOBE_TEMP
   + HEAT_SURVEY_OUT_DRY_BULB_TEMP
   + HEAT_SURVEY_OUT_WET_BULB_TEMP
   + HEAT_SURVEY_SAMPLE_TIME
   + HEAT_SURVEY_WET_BULB_TEMP
   + HEAT_SURVEY_WET_BULB_TEMP_INDEX

IMMUNIZATION =
     IMMUNIZATION_DATE
   + IMMUNIZATION_TYPE
   + ANTI_MALARIAL_PROPHYLAXIS_IND
   + ANTI_MALARIAL_START_DATE
   + ANTI_MALARIAL_STOP_DATE
   + EXPOSURE_INDICATOR
   + IMMUNIZATION_BATCH_NUMBER
   + IMMUNIZATION_CREW_ALLERGY_IND
```

```
   + IMMUNIZATION_DOSAGE
   + IMMUNIZATION_DUE_DATE
   + IMMUNIZATION_INDICATOR
   + IMMUNIZATION_PROVIDER_NAME
   + MEDICAL_ID_TAG_INDICATOR
   + MEDICAL_ID_TAG_ISSUE_DATE
   + MEDICAL_ID_TAG_SIGNATURE_IND
   + PPD_COMMENTS
   + PPD_CONVERTER_INDICATOR
   + PPD_LAST_EVAL_DATE
   + PPD_NEXT_EVAL_DATE
   + PPD_REQUIRED_FOLLOW_UP_COMPLETE
   + PPD_SCREEN_DATE
   + PPD_SCREEN_DUE_DATE

INJURY =
     INJURY_DATE
   + INJURY_SEQUENCE_NUMBER
   + INJURY_CIRCUMSTANCES_TEXT
   + INJURY_DIAGNOSIS
   + INJURY_DISABILITY
   + INJURY_FIRST_SEEN_DATE
   + INJURY_FIRST_SEEN_TIME
   + INJURY_LOCATION
   + INJURY_LOCATION_OF ACCIDENT
   + INJURY_MED_DEPT_NAME
   + INJURY_MISHAP_REPORT_IND
   + INJURY_PROGNOSIS
   + INJURY_REPORT_DATE
   + INJURY_REPORT_INDICATOR
   + INJURY_START_TIME
   + INJURY_SUBJECT_CONDITION_CODE
   + INJURY_TREATMENT
   + INJURY_WITNESS_DEPARTMENT
   + INJURY_WITNESS_DIVISION
   + INJURY_WITNESS_NAME
   + MISCONDUCT_CODE
   + NUMBER_OF_DAYS_LOST
   + RETURN_DATE
   + SAFETY_HAZARD_INDICATOR
   + UNDER_THE_INFLUENCE_CODE

INVENTORY ITEM =
     INVENTORY_DATE
   + INVENTORY_TYPE
   + INVENTORY_LOCATION
   + INV_ITEM_ALLOWANCE
   + INV_ITEM_EXPIRATION_DATE
   + INV_ITEM_FIRST_INSPECTION_DATE
   + INV_ITEM_INSPECTION_CODE
   + INV_ITEM_INSPECTION_DATE
   + INV_ITEM_INSPECTION_DUE_DATE
   + INV_ITEM_LOCAL_MANUFACTURER
   + INV_ITEM_LOT_NUMBER
   + INV_ITEM_MANUFACTURE_DATE
   + INV_ITEM_NATIONAL_STOCK_NUMBER
```

```
   + INV_ITEM_NOMENCLATURE
   + INV_ITEM_QUANTITY_ON_HAND
   + INV_ITEM_SHELF_LIFE
   + INV_ITEM_TYPE
   + INV_ITEM_UNIT_OF_ISSUE

LAB TESTS =
     LAB_TEST_SEQUENCE_NUMBER
   + LAB_TEST_COMMENTS
   + LAB_TEST_DATE
   + LAB_TEST_RESULT
   + LAB_TEST_TYPE

MED LIBRARY ITEM =
     PUBLICATION_NUMBER
   + PUBLICATION_TITLE
   + PUBLICATION_AUTHOR_OR_ORIG
   + PUBLICATION_DATE
   + PUBLICATION_PUBLISHER_NAME
   + PUBLICATION_REVISION_CHANGE

MEDICAL =
     MEDICAL_DEPT_REPRESENTATIVE_NAME
   + MEDICAL_DEPT_LOCATION
   + MEDICAL_DEPT_PHONE
   + MEDICAL_DEPT_REPRESENTATIVE_SSN
   + MEDICAL_RADIATION_SURVEILL_IND
   + MEDICAL_RAD_HEALTH_OFFICER_NAME
   + MEDICAL_RAD_HEALTH_OFFICER_SSN

MEDICAL CHIT =
     MEDICAL_CHIT_EFFECTIVE_DATE
   + MEDICAL_CHIT_TYPE
   + MEDICAL_CHIT_DIAGNOSIS
   + MEDICAL_CHIT_EXPIRATION_DATE
   + MEDICAL_CHIT_ISSUING_ACTIVITY
   + MEDICAL_CHIT_REASON
   + MEDICAL_CHIT_TO_ACTIVITY
   + MEDICAL_STATUS_INDICATOR

MEDICAL CONSULT =
     MEDICAL_CONSULT_DATE
   + MEDICAL_CONSULT_TYPE
   + MEDICAL_CONSULT_DIAGNOSIS
   + MEDICAL_CONSULT_FOLLOW_UP_IND
   + MEDICAL_CONSULT_LOCATION
   + MEDICAL_CONSULT_PREVIOUS_RESULTS
   + MEDICAL_CONSULT_PROVIDER_NAME
   + MEDICAL_CONSULT_PROVIDER_NUM
   + MEDICAL_CONSULT_REASON
   + MEDICAL_CONSULT_REFERRAL_TO
   + MEDICAL_CONSULT_REPORT_RECEIVED
   + MEDICAL_CONSULT_TIME

MEDICINAL =
     MEDICINAL_PRESCRIPTION_NUMBER
```

```
   + MEDICINAL_AUTHORIZATION_REQUIRED
   + MEDICINAL_ISSUE_DATE
   + MEDICINAL_ISSUE_TIME
   + MEDICINAL_NSN
   + MEDICINAL_NSN_LOCATION
   + MEDICINAL_PATIENT_NAME
   + MEDICINAL_QUANTITY_ISSUED

MEMBER =
     MEDICAL_MEMBER_SSN
   + MEDICAL_MEMBER_NAME
   + MEMBER_ALLERGY_INDICATOR
   + MEMBER_BODY_FAT_PERCENT
   + MEMBER_HEIGHT
   + MEMBER_MEDICAL_SURVEILLANCE_IND
   + MEMBER_RH_ABO_BLOOD_TYPE
   + MEMBER_WEIGHT
   + MEMBER_WEIGHT_CONTROL_PROGRAM

PEST CONTROL =
     PEST_CONTROL_ACTION
   + PEST_CONTROL_DATE
   + PEST_CONTROL_SPACE_SPRAYED
   + PEST_CONTOL_TYPE_OF_PEST
   + PEST_CONTROL_COMMENTS
   + PEST_CONTROL_FOLLOW_UP_DATE
   + PEST_CONTROL_OPERATOR_INITIAL
   + PEST_CONTROL_PESTICIDE_AMOUNT
   + PEST_CONTROL_PESTICIDE_TYPE
   + PEST_CONTROL_PEST_COUNT
   + PEST_CONTROL_SIGNATURE

PHYSICAL EXAM =
     PHYSICAL_EXAM_DATE
   + PHYSICAL_EXAM_TYPE
   + PHYSICAL_CLINICAL_EVALUATION_TYP
   + PHYSICAL_EXAM_COMMENTS
   + PHYSICAL_EXAM_DUE_DATE
   + PHYSICAL_EXAM_FACILITY
   + PHYSICAL_EXAM_INDICATOR
   + PHYSICAL_EXAM_RECOMMENDATIONS
   + PHYSICAL_EXAM_RESULTS
   + PHYSICAL_MED_SURVEILLANCE_IND
   + PHYSICAL_PHYSICIAN_NAME
   + PHYSICAL_PURPOSE_FOR_EXAM
   + PHYSICAL_QUALIFICATION_INDICATOR

RADIATION EXPOSURE =
     RAD_EXP_QUARTER_NUMBER
   + RAD_EXP_SEQUENCE_NUMBER
   + RADIATION_CODE
   + RAD_BIOASSAY_ACTIVITY
   + RAD_BIOASSAY_CHEMICAL_FORM
   + RAD_BIOASSAY_COMMENT_IND
   + RAD_BIOASSAY_DATE
   + RAD_BIOASSAY_INDICATOR
```

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   + RAD_BIOASSAY_INSTRUMENT
   + RAD_BIOASSAY_LOCATION
   + RAD_BIOASSAY_PROBE_DESCRIPTION
   + RAD_BIOASSAY_PROBE_SERIAL_NUMBER
   + RAD_BIOASSAY_PURPOSE
   + RAD_BIOASSAY_RADIONUCLIDE_TYPE
   + RAD_BIOASSAY_RESULT
   + RAD_BIOASSAY_SERIAL_NUMBER
   + RAD_BIOASSAY_TIME
   + RAD_BIOASSAY_TYPE
   + RAD_BIO_MIN_DETECTABLE_ACTIVITY
   + RAD_EXPOSURE_EXTREMITY
   + RAD_EXPOSURE_SHIP_ADDRESS
   + RAD_EXP_COMMENT
   + RAD_EXP_COMMENT_INDICATOR
   + RAD_EXP_ESTIMATED_INDICATOR
   + RAD_EXP_LOCATION_SHIP_NAME
   + RAD_EXP_RECORD_TYPE
   + RAD_EXP_RESULT_GAMMA
   + RAD_EXP_RESULT_NEUTRON
   + RAD_EXP_SKIN_DOSAGE
   + RAD_EXP_START_DATE
   + RAD_EXP_STOP_DATE
   + RAD_EXP_TLD_TYPE
   + RAD_EXP_TOTAL_LIFE_NUMERIC
   + RAD_EXP_TOTAL_LIFE_TO_DATE
   + RAD_EXP_TOTAL_PERIOD_COUNT
   + RAD_EXP_VISITOR_MEMBER_INDICATOR
   + RAD_NON_REPORTING_VISITOR_IND
   + RAD_PERMISSIBLE_LIFETIME_COUNT
   + RAD_TOTAL_EXPOSURE

SICK CALL =
     SICKCALL_DATE
   + SICKCALL_START_TIME
   + SICKCALL_BLOOD_PRESSURE_SYSTOLC
   + SICKCALL_BLOOD_PRESS_DIASTOLIC
   + SICKCALL_BODY_TEMP
   + SICKCALL_DISPOSITION_COMMENTS
   + SICKCALL_DISPOSITION_TYPE
   + SICKCALL_ESTIMATED_DAYS
   + SICKCALL_FOLLOW_UP_DATE
   + SICKCALL_FOLLOW_UP_TIME
   + SICKCALL_MED_FACILITY_LOCATION
   + SICKCALL_PULSE_RATE
   + SICKCALL_RESPIRATION
   + SICKCALL_TREATMENT_COMPLETE_IND
   + SICKCALL_VIA_TRANSPORTATION

VISION INFO =
     EYE_EXAM_DATE
   + EYE_EXAM_TYPE
   + EYEWEAR_INDICATOR
   + EYEWEAR_SPECIAL_INDICATOR
   + EYE_COLOR_VISION_TEST
   + EYE_DEPTH_PERCEPTION
```

```
    + EYE_DISTANT_VISION_LEFT
    + EYE_DISTANT_VISION_RIGHT
    + EYE_INTRAOCULAR_TENSION
    + EYE_NEAR_VISION_LEFT
    + EYE_NEAR_VISION_RIGHT
    + EYE_NUMBER_OF_CONTACT_LENSES
    + EYE_NUMBER_OF_SPECTACLES
    + EYE_REFRACTION_LEFT
    + EYE_REFRACTION_RIGHT
    + LENS_TYPE

WATER SAMPLE =
      WATER_TEST_SEQUENCE_NUMBER
    + DAILY_BROMINE_CHLORINE_RESIDUAL
    + WATER_BACTERIA_TEST_RESULTS
    + WATER_TEST_COMMENT
    + WATER_TEST_DATE
    + WATER_TEST_LOCATION
    + WATER_TEST_SOURCE
```

ATTRIBUTE REPORT FOR MEDICAL - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
ANTI_MALARIAL_PROPHYLAXIS_IND	ANTI MAL PR	L	N	IMMUNIZA W
SC: Indicates if the crew member has had anti malarial prophylaxis				
ANTI_MALARIAL_START_DATE	ANTI MAL ST	D	N	IMMUNIZA W
SC: The start date of anti malarial prophylaxis				
ANTI_MALARIAL_STOP_DATE	ANTI MAL ST	D	N	IMMUNIZA W
SC: Date that anti malarial prophylaxis stopped				
DAILY_BROMINE_CHLORINE_RESIDUAL	WTRCHBR	C,5	N	WATER E
SC: DAILY CHLORINE BROMINE RESIDUAL (NUMERIC OR "TRACE")				
DENTAL_CLASSIFICATION_NUMBER	DENTNBR	N,1	N	DENTAL W
SC: THIS IS THE DENTAL CLASSIFICATION NUMBER (1,2,3 OR 4) OF THE MEMBER				
DENTAL_CLASS_PREVIOUS_NUMBER	DNTPVNB	N,1	N	DENTAL W
SC: THE PREVIOUS DENTAL CLASSIFICATION NUMBER OF THE MEMER				
DENTAL_EXAM_DUE_DATE	DNTEXDU	D	N	DENTAL W
SC: DATE FOR THE MEMBER'S NEXT DENTAL EXAM				
DENTAL_EXAM_LAST_DATE	DNTEXDT	D	N	DENTAL W
SC: DATE OF THE MEMBER'S LAST DENTAL EXAM				
DENTAL_FOLLOWUP_DATE	DNTFWDT	D	N	DENTAL W
SC: DATE FOR THE NEXT FOLLOW UP DENTAL EXAM				
DENTAL_PANOGRAPH_DATE_ON_FILE	DNTPNDT	D	N	DENTAL W
SC: DATE OF THE MEMBER'S LAST DENTAL PANOGRAPH				
DENTAL_SURVEY_DATE	DETSURD	D	N	DENTAL W
SC: DATE OF THE MEMBER'S LAST DENTAL SURVEY				
DENTAL_SURVEY_INDICATOR	DETSURI	L	N	DENTAL W
SC: INDICATES IF THE MEMBER HAS BEEN PART OF THE DENTAL SURVEY				
EXPOSURE_INDICATOR	EXP IND	L	N	IMMUNIZA W
SC: Indicates exposure to a specific type of disease, virus, etc				

Long Comment :
Immunization type can equal:

SMALLPOX	CHOLERA	TYPHOID
TETANUS	INFLUENZA	PLAGUE
POLIO	YELLOW FEVER	GAMMA GLOBULIN
OTHER		

EYEWEAR_INDICATOR	EYEWRIN	L	N	VISION W
SC: INDICATES IF MEMBER REQUIRES EYEWEAR				
EYEWEAR_SPECIAL_INDICATOR	EYESPIN	L	N	VISION W

SC: INDICATES IF SPECIAL EYEWEAR IS REQUIRED(EG DIVING)

EYE_COLOR_VISION_TEST EYECOLORTES C,25 N VISION W
SC: DESCRIBES THE TYPE OF COLOR TEST AND RESULTS (PASS/FAIL)

EYE_DEPTH_PERCEPTION EYEDEPTHPER C,50 N VISION W
SC: DESCRIBES THE DEPTH PERCEPTION TEST AND RESULTS

EYE_DISTANT_VISION_LEFT EYEDISTLFT N,15 N VISION W
SC: LEFT EYE UNCORRECTED/CORRECTED DISTANT VISION (UNCORR20/XXXCORR20/XXX)

EYE_DISTANT_VISION_RIGHT EYEDISTRHT N,15 N VISION W
SC: RIGHT EYE UNCORRECTED/CORRECTED DISTANT VISION(UNCORR20/XXXCORR20/XXX)

EYE_EXAM_DATE EYEEXDATE D Y VISION W
SC: DATE OF THE MEMBER'S LAST EYE EXAM

EYE_EXAM_TYPE EYEXAMTYP C,45 Y VISION W
SC: THE TYPE OF EYE EXAM AS SPECIFIED

EYE_INTRAOCULAR_TENSION EYEINTTRAOC C,50 N VISION W
SC: DESCRIBES THE INTRAOCULAR TENSION OF THE LEFT/RIGHT EYES (mmHG)

EYE_NEAR_VISION_LEFT EYENEARLFT N,25 N VISION W
SC: LEFT EYE UNCORRECT/CORRECT VISION AND LENS DESCRIPTION

EYE_NEAR_VISION_RIGHT EYENEARRHT N,25 N VISION W
SC: RIGHT EYE UNCORRECT/CORRECT NEAR VISION AND LENS DESCRIPTION

EYE_NUMBER_OF_CONTACT_LENSES EYENUMC N,1 N VISION W
SC: THE NUMBER OF PAIRS OF CONTACT LENSES HE MEMBER OWNS

EYE_NUMBER_OF_SPECTACLES EYENUMS N,1 N VISION W
SC: THE TOTAL NUMBER OF SPECTACLES THE MEMBER OWNS

EYE_REFRACTION_LEFT EYEREFRACTL N,4,2 N VISION W
SC: REFRACTION PRESCRIPTION FOR THE LEFT EYE AS NECESSARY

EYE_REFRACTION_RIGHT EYEREFRACTR N,4,2 N VISION W
SC: REFRACTIVE PRESCRIPTION FOR THE RIGHT EYE AS NECESSARY

HEARING_90_DAY_FOLLWUP_EXAM_DATE AUDIOFOLEXD D N HEARING W
SC: DATE OF A FOLLOW-UP AUDIOGRAM 90 DAYS FROM DATE OF LAST AUDIOGRAM

HEARING_AUDIOGRAM_COMMENTS AUDIOCMNT C,120 N HEARING W
SC: COMMENTS REGARDING A SPECIFIED AUDIOGRAM

HEARING_AUDIOGRAM_INDICATOR AUDIOGRMIND L N HEARING W
SC: INDICATES IF THE MEMBER REQUIRES A SPECIFIED AUDIOGRAM

HEARING_AUDIOGRAM_LAST_DATE AUDIODT D Y HEARING W
SC: DATE OF THE LAST REFERENCE AUDIOGRAM (FORM DD2215 AUDIOGRAM)

HEARING_AUDIOGRAM_TYPE AUDIOTYPE C,25 Y HEARING W
SC: SPECIFIES THE TYPE OF AUDIOGRAM (BASELINE, FOLLOW-UP, OTHER, ETC.)

HEARING_AUDIOGRAM_TYPE_DUE_DATE AUDIODUDT D N HEARING W
SC: DATE FOR THE NEXT SPECIFIED AUDIOGRAM

HEARING_DOUBLE_PROTECTION_IND DBLPROTECT L N HEARING W
SC: INDICATES IF DOUBLE HEARING PROTECTION IS REQUIRED

HEARING_EAR_PLUG_ISSUE_DATE EARPLUGDT D N HEARING W
SC: DATE THE EAR PLUGS WERE ISSUED TO THE MEMBER

HEARING_EAR_PLUG_SIZE_LEFT EARPLUGLFT C,2 N HEARING W
SC: THIS IS THE LEFT EAR PLUG SIZE

Long Comment :
EAR PLUG SIZES:
XS, S, M, L, XL

HEARING_EAR_PLUG_SIZE_RIGHT EARPLUGRHT C,2 N HEARING W
SC: THIS IS THE SIZE OF THE RIGHT EAR PLUG

Long Comment :
EAR PLUG SIZES:
SM, S, M, L, XL

HEARING_EAR_PLUG_TYPE EARPLUGTYPE C,20 N HEARING W
SC: DESCRIPTION OF THE TYPE OF EAR PLUGS ISSUED TO THE MEMBER

HEAT_EXPOSURE_DATE HEXPDT D Y HEAT EXP W
SC: DATE THAT HEAT EXPOSURE WAS RECEIVED

HEAT_EXPOSURE_TIME HEXPTIME T Y HEAT EXP W
SC: TIME THE HEAT EXPOSURE OCCURRED (HHMM)

HEAT_EXP_PHEL_COMMENTS HEAT EXP PH C,50 N HEAT EXP W
SC: Comments concerning heat stress survey exposure/recovery times

HEAT_EXP_PHEL_EXPOSURE_TIME HEAT EXP PH N,2,1 Y HEAT EXP W
SC: PERSONAL HEAT EXPOSURE TIME IN HOURS (I.E. .2HR, 2.3HR, ETC)

HEAT_EXP_PHEL_OPERATOR_NUMBER HEAT EXP PH N,1 N HEAT EXP W
SC: Heat stress survey pers heat exposure limit time operator

HEAT_EXP_PHEL_RECOVERY_TIME HEAT EXP PH T N HEAT EXP W
SC: Heat stress survey PHEL recovery time

HEAT_SURVEY_COMMENTS HEAT SURV C C,75 N HTSTRESS E
SC: Remarks concerning the specified heat stress survey

HEAT_SURVEY_DRY_BULB_TEMP HEAT SURV D N,5 N HTSTRESS E
SC: Heat stress survey dry bulb temperature reading

HEAT_SURVEY_FUEL_PRESENT_IND HEAT SURV F L N HTSTRESS E
SC: Indicator (Y/N) to represent whether fuel was present during survey

HEAT_SURVEY_GLOBE_TEMP HEAT SURV G N,5 N HTSTRESS E

SC: Heat stress survey globe temperature

HEAT_SURVEY_OUT_DRY_BULB_TEMP HEAT SURV O N,5 N HTSTRESS E
SC: Heat stress survey outer dry bulb temp

HEAT_SURVEY_OUT_WET_BULB_TEMP HEAT SURV O N,5 N HTSTRESS E
SC: Heat stress survey outer wet bulb temperature

HEAT_SURVEY_SAMPLE_DATE HEAT SUR SM D Y HTSTRESS E
SC: Date of the specified survey

HEAT_SURVEY_SAMPLE_LOCATION HEAT SURV S C,25 Y HTSTRESS E
SC: Physical location of the heat stress survey

HEAT_SURVEY_SAMPLE_TIME HEAT SURV S T N HTSTRESS E
SC: Time of the specified heat stress survey

HEAT_SURVEY_WET_BULB_TEMP HEAT SURV W N,5 N HTSTRESS E
SC: Heat stress survey wet bulb temperature reading

HEAT_SURVEY_WET_BULB_TEMP_INDEX HEAT SURV W N,6 N HTSTRESS E
SC: Heat stress survey wet bulb temperature index

IMMUNIZATION_BATCH_NUMBER IMMUNBATCHN N,10 N IMMUNIZA W
SC: THE BATCH NUMBER OF THE SPECIFIC IMMUNIZATION MATERIAL DISPENSED

IMMUNIZATION_CREW_ALLERGY_IND IMMUNCRWALR C,50 N IMMUNIZA W
SC: Identification of crew member allergies

IMMUNIZATION_DATE IMMUN DATE D Y IMMUNIZA W
SC: Date of the last specific type immunization

IMMUNIZATION_DOSAGE IMMUNDOSE C,25 N IMMUNIZA W
SC: THE SPECIFIC IMMUNIZATION DOSAGE ADMINISTERED

IMMUNIZATION_DUE_DATE IMMUN DUE D D N IMMUNIZA W
SC: Date for the next immunization of a specific type

IMMUNIZATION_INDICATOR IMMUN IND L N IMMUNIZA W
SC: Indicates eligibility for a specific immunization

IMMUNIZATION_PROVIDER_NAME IMMUNPROVNA C,45 N IMMUNIZA W
SC: NAME/RANK/RATE OF THE PERSON ADMINISTERING THE IMMUNIZATION

IMMUNIZATION_TYPE IMMUN TYPE C,25 Y IMMUNIZA W
SC: Indicates the type of immunization (e.g. Cholera, Typhoid)

Long Comment :
IMMUNIZATION TYPE CAN BE:

SMALLPOX	YELLOW FEVER	TYPHOID
TETANUS	CHOLERA	POLIO
INFLUENZA	PLAGUE	GAMMA GLOBULIN

OTHER (AS SPECIFIED)

INJURY_CIRCUMSTANCES_TEXT INJCIRC C,75 N INJURY W

SC: DESCRIPTION OF THE CIRCUMSTANCES OF THE INJURY

INJURY_DATE	INJDAT	D	Y	INJURY	W
SC: DATE OF THE INJURY					
INJURY_DIAGNOSIS	INJDIAG	C,120	N	INJURY	W
SC: BRIEF DESCRIPTION OF THE MEDICAL REPRESENTATIVE'S DIAGNOSIS					
INJURY_DISABILITY	INJDISABL	L	N	INJURY	W
SC: INDICATES WHETHER THE INJURY RESULTS IN THE MEMBER'S DISABILITY					
INJURY_FIRST_SEEN_DATE	INJFIRDAT	D	N	INJURY	W
SC: DATE THE MEMBER WAS FIRST SEEN WRT THIS INJURY					
INJURY_FIRST_SEEN_TIME	INJFIRTIM	T	N	INJURY	W
SC: TIME OF THE FIRST EVALUATION FOR THIS INJURY					
INJURY_LOCATION	INJLOC	C,120	N	INJURY	W
SC: BRIEF DESCRIPTION OF THE LOCATION WHERE THE INJURY OCCURRED					
INJURY_LOCATION_OF ACCIDENT	ACC LOC	C,25	N	INJURY	W
SC: DESCRIPTION OF THE LOCATION OF THE ACCIDENT					
INJURY_MED_DEPT_NAME	INJMEDNAM	C,50	N	INJURY	W
SC: NAME/RANK OF THE MEDICAL DEPARTMENT REPRESENTATIVE REPORTING DATA					
INJURY_MISHAP_REPORT_IND	INJMISHAP	L	N	INJURY	W
SC: INDICATES THE REQUIREMENT FOR AN INTERNAL/EXTERNAL MISHAP REPORT					
INJURY_PROGNOSIS	INJPROG	C,120	N	INJURY	W
SC: BRIEF DESCRIPTION OF THE INJURED PROGNOSIS					
INJURY_REPORT_DATE	INJREPDAT	D	N	INJURY	W
SC: DATE THE INJURY REPORT WAS SUBMITTED FOR THE SPECIFIED INJURY					
INJURY_REPORT_INDICATOR	INJREPIND	L	N	INJURY	W
SC: INDICATES IF AN INJURY REPORT HAS BEEN SUBMITTED					
INJURY_SEQUENCE_NUMBER	INJSEQNUM	N,5	Y	INJURY	W
SC: SEQUENTIAL NUMBER FOR TRACKING MEMBER MEDICAL INCIDENTS (YYNNN)					
INJURY_START_TIME	INJSTRTIM	T	N	INJURY	W
SC: START TIME OF THE INJURY					
INJURY_SUBJECT_CONDITION_CODE	INJSUBCON	N,9	N	INJURY	W
SC: CODE NUMBER IDENTIFIES THE CONDITION OF THE SUBJECT MEMBER					

Long Comment :
SUBJECT CONDITION CODES:
1 - ALCOHOL
2 - TRUCULENT
3 - UNCOORDINATED
4 - STAGGERING
5 - UNSTEADY
6 - INCOHERENT
7 - SEMI-CONSCIOUS

8 - COUGHING
9 - NORMAL

INJURY_TREATMENT	INJTRT	C,120	N	INJURY	W
SC: BRIEF DESCRIPTION OF THE TREATMENT RENDERED					
INJURY_WITNESS_DEPARTMENT	INJWITDEP	C,10	N	INJURY	W
SC: THE DEPARTMENT TO WHICH A WITNESS TO THE INJURY IS ASSIGNED					
INJURY_WITNESS_DIVISION	INJWITDIV	C,25	N	INJURY	W
SC: DIVISION TO WHICH A WITNESS TO THE INJURY IS ASSIGNED					
INJURY_WITNESS_NAME	INJWITNAM	C,45	N	INJURY	W
SC: NAME/RANK/RATE OF A WITNESS TO THE INCIDENT					
INVENTORY_DATE	INVDATE	D	Y	INVENTOR	E
SC: DATE OF THE SPECIFIED INVENTORY					
INVENTORY_LOCATION	INVLOC	C,50	N	INVENTOR	E
SC: DESCRIPTION OF THE LOCATION OF THE SPECIFIC INVENTORY (Ist AID LOCKER)					
INVENTORY_TYPE	INVTYP	C,25	Y	INVENTOR	E
SC: DESCRIPTION OF THE TYPE OF INVENTORY: MAJOR, MINOR, LITTER, ETC					
INV_ITEM_ALLOWANCE	INVALW	N,4	N	INVENTOR	E
SC: THE AUTHORIZED/ALLOWED NUMBER OR QUANTITY OF THE SPECIFIED ITEM					
INV_ITEM_EXPIRATION_DATE	INVEXPDT	D	N	INVENTOR	E
SC: DATE OF EXPIRATION OF SPECIFIED ITEMS					
INV_ITEM_FIRST_INSPECTION_DATE	INVFIRINSP	D	N	INVENTOR	E
SC: DATE THE SPECIFIED ITEM WAS FIRST INSPECTED ONBOARD					
INV_ITEM_INSPECTION_CODE	INVINSPCODE	C,1	N	INVENTOR	E
SC: CODE TO INDICATE THE TYPE OF INSPECTION (R-RECEIPT, I-ISSUE)					
INV_ITEM_INSPECTION_DATE	INVITINSPDT	D	N	INVENTOR	E
SC: THE DATE A SPECIFIED ITEM WAS INSPECTED					
INV_ITEM_INSPECTION_DUE_DATE	INVINSPDU	D	N	INVENTOR	E
SC: DATE OF THE NEXT INSPECTION FOR A SPECIFIED ITEM					
INV_ITEM_LOCAL_MANUFACTURER	INVLOCMANF	C,50	N	INVENTOR	E
SC: THE NAME/ADDRESS OF A LOCAL MANUFACTURER OF THE SPECIFIED ITEM					
INV_ITEM_LOT_NUMBER	INVLOTNUM	N,7	N	INVENTOR	E
SC: FOR THOSE ITEMS PRODUCED IN LOTS (IE SERUMS) THE NUMBER FOR TRACKING					
INV_ITEM_MANUFACTURE_DATE	INVMANFDT	D	N	INVENTOR	E
SC: DATE THE SPECIFIED ITEM WAS MANUFACTURED					
INV_ITEM_NATIONAL_STOCK_NUMBER	INVNSN	N,15	N	INVENTOR	E
SC: THE NATIONAL STOCK NUMBER OF THE ITEM INVENTORIED					
INV_ITEM_NOMENCLATURE	INVITMNOM	C,50	N	INVENTOR	E

SC: THE NOUN NAME OF THE INVENTORY ITEM

INV_ITEM_QUANTITY_ON_HAND INVQOH N,4 N INVENTOR E
SC: THE QUANTITY OF THE ITEM BEING INVENTORIED

INV_ITEM_SHELF_LIFE INVSHELF N,3 N INVENTOR E
SC: THE SHELF LIFE IN MONTHS OF A SPECIFIED ITEM AS NECESARY

INV_ITEM_TYPE INVITMTYP C,25 N INVENTOR E
SC: MAKE/MODEL/MARK DESCRIPTION OF THE SPECIFIED ITEM (IE LITTERS)

INV_ITEM_UNIT_OF_ISSUE INVUNIT ISS C,25 N INVENTOR E
SC: THE ITEM'S UNIT OF ISSUE (ROLL, DOZEN, OUNCE, MILLIGRAM)

LAB_TEST_COMMENTS LABTESTCMNT C,120 N LAB TEST W
SC: COMMENTS CONCERNING THE SPECIFIED LABORATORY TEST

LAB_TEST_DATE LABTESTDAT D N LAB TEST W
SC: DATE OF THE SPECIFIED LABORATORY TEST

LAB_TEST_RESULT LABTESTRESU C,50 N LAB TEST W
SC: RESULTS OF THE SPECIFIED LABORATORY TEST

LAB_TEST_SEQUENCE_NUMBER LABSEQNBR N,6 Y LAB TEST W
SC: SEQUENTIAL NUMBER OF LAB TESTS FOR TRACKING PURPOSES (YYNNNN)

LAB_TEST_TYPE LABTESTTYPE C,45 N LAB TEST W
SC: DESCRIBES THE SPECIFIC LABORATORY TEST CONDUCTED

LENS_TYPE EYELNTY C,1 N VISION W
SC: TYPE OF EYEWEAR THE MEMBER USES

Long Comment :
TYPE OF EYEWEAR LENSES:
S - SINGLE
B - BIFOCAL
T - TRIFOCAL
M - MULTI
_ - SPACE INDICATES NO EYEWEAR REQUIRED

MEDICAL_CHIT_DIAGNOSIS MEDCHTDIAG C,70 N MEDCHIT W
SC: DIAGNOSIS OF THE MEMBER'S CONDITION REQUIRING THE MEDICAL CHIT

MEDICAL_CHIT_EFFECTIVE_DATE MEDCHITEFFD D Y MEDCHIT W
SC: THE EFFECTIVE DATE OF THE MEDICAL CHIT

MEDICAL_CHIT_EXPIRATION_DATE MEDCHTEXPDA D N MEDCHIT W
SC: DATE OF EXPIRATION OF THE MEDICAL CHIT

MEDICAL_CHIT_ISSUING_ACTIVITY MEDCHTISSAC C,40 N MEDCHIT W
SC: THE ACTIVITY THAT ORIGINATED THE MEDICAL CHIT

MEDICAL_CHIT_REASON MEDCHTRSN C,70 N MEDCHIT W
SC: REASON FOR ISSUING THE MEDICAL CHIT

MEDICAL_CHIT_TO_ACTIVITY	MEDCHTTOACT	C,40	N	MEDCHIT	W
SC: ACTIVITY TO WHICH THE CHIT IS FOWARDED(E.G. MEMBER'S COMMAND)					
MEDICAL_CHIT_TYPE	MEDCHITTYPE	C,25	Y	MEDCHIT	W
SC: DESCRIBES THE TYPE OF MEDICAL CHIT (E.G. UP/DOWN, LIMDU, SIQ)					
MEDICAL_CONSULT_DATE	MEDCONSDAT	D	Y	MEDCONS	W
SC: DATE THE MEDICAL CONSULT WAS CONDUCTED WITH THE MEMBER					
MEDICAL_CONSULT_DIAGNOSIS	MEDCONSDIAG	C,120	N	MEDCONS	W
SC: DESCRIPTION OF THE DIAGNOSIS REQUIRING AN EXTERNAL MEDICAL CONSULT					
MEDICAL_CONSULT_FOLLOW_UP_IND	MEDCONSFOLL	L	N	MEDCONS	W
SC: INDICATES WHEN A MEDICAL CONSULT REQUIRES ADDITIONAL FOLLOW-UP					
MEDICAL_CONSULT_LOCATION	MEDCONSLOC	C,75	N	MEDCONS	W
SC: INDICATES THE PLACE OF THE REFERRED MEDICAL CONSULTATION					
MEDICAL_CONSULT_PREVIOUS_RESULTS	MEDCONSPREV	C,120	N	MEDCONS	W
SC: DESCRIBES THE RESULTS OF A PREVIOUS MEDICAL CONSULTATION					
MEDICAL_CONSULT_PROVIDER_NAME	EXTPRONAM	C,120	N	MEDCONS	W
SC: NAME/TITLE/ADDRESS OF THE MEDICAL PROVIDER FOR THE MEDICAL CONSULT					
MEDICAL_CONSULT_PROVIDER_NUM	MEDCONSPROV	N,15	N	MEDCONS	W
SC: THE LICENSE NUMBER/SSN OF THE EXTERNAL MEDICAL SERVICES PROVIDER					
MEDICAL_CONSULT_REASON	MEDCONSREAS	C,79	N	MEDCONS	W
SC: REASON FOR REFERRAL TO EXTERNAL MEDICAL SERVICES CONSULTATION					
MEDICAL_CONSULT_REFERRAL_TO	MEDCONSREFT	C,50	N	MEDCONS	W
SC: DESCRIBES WHAT EXTERNAL ACTIVITY THE MEDICAL CONSULT WAS REFERRED TO					
MEDICAL_CONSULT_REPORT_RECEIVED	MEDCONSREPT	L	N	MEDCONS	W
SC: INDICATES IF THE MEDICAL CONSULT REPORT HAS BEEN RECEIVED					
MEDICAL_CONSULT_TIME	MEDCONSTIM	T	N	MEDCONS	W
SC: TIME OF THE MEDICAL CONSULT FOR THE MEMBER					
MEDICAL_CONSULT_TYPE	MEDCONSTYPE	C,1	Y	MEDCONS	W
SC: CODE TO INDICATE THE TYPE OF MEDICAL CONSULT (TYPE: 1-4)					
MEDICAL_DEPT_LOCATION	MEDDEPLOCA	C,25	N	MEDICAL	E
SC: LOCATION OF THE MEDICAL DEPT OFFICE					
MEDICAL_DEPT_PHONE	MEDDEPPHON	N,7	N	MEDICAL	E
SC: PHONE NUMBER OF THE MEDICAL OFFICES					
MEDICAL_DEPT_REPRESENTATIVE_NAME	MEDSENIORNA	C,50	Y	MEDICAL	E
SC: NAME/RANK/RATE OF THE SENIOR MEMBER ASSIGNED TO THE MEDICAL FACILITY					
MEDICAL_DEPT_REPRESENTATIVE_SSN	MEDDEPTREPS	N,15	N	MEDICAL	E
SC: THE SOCIAL SECURITY NUMBR OF THE SENIOR MEDICAL DEPT REPRESENTATIVE					
MEDICAL_ID_TAG_INDICATOR	MED ID TAG	L	N	IMMUNIZA	W
SC: Indicates if medical alert id tag has been issued to member					

MEDICAL_ID_TAG_ISSUE_DATE	MED ID TAG	D	N	IMMUNIZA	W
SC: Date of issue of medical alert id tag					
MEDICAL_ID_TAG_SIGNATURE_IND	MED ID SIG	L	N	IMMUNIZA	W
SC: SIGNATURE OF MED ALERT TAG ISSUER					
MEDICAL_MEMBER_NAME	MEDMBRNAM	C,45	N	MEMBER	E
SC: THE NAME OF A MEMBER IN THE COMMAND MEDICAL RECORD FILES/DATABASE					
MEDICAL_MEMBER_SSN	MEDMBRSSN	N,12	Y	MEMBER	E
SC: THE SOCIAL SECURITY NUMBER OF A SPECIFIC MEMBER IN THE COMMAND					
MEDICAL_RADIATION_SURVEILL_IND	MEDRADSURVE	L	N	MEDICAL	E
SC: INDICATES IF THE COMMAND HAS A RADIATION SURVEILLANCE IN PLACE					
MEDICAL_RAD_HEALTH_OFFICER_NAME	MEDRADHEALN	C,50	N	MEDICAL	E
SC: THE NAME/RANK/RATE OF THE COMMAND'S RADIATION HEALTH OFFICER					
MEDICAL_RAD_HEALTH_OFFICER_SSN	MEDRADHEALS	N,15	N	MEDICAL	E
SC: RADIATION HEALTH OFFICER'S SOCIAL SECURITY NUMBER					
MEDICAL_STATUS_INDICATOR	MEDSTATUS	L	N	MEDCHIT	W
SC: INDICATES IF A MEDICAL CHIT HAS BEEN ISSUED TO A MEMBER					
MEDICINAL_AUTHORIZATION_REQUIRED	MEDAUTHREQD	L	N	MEDICINA	W
SC: Indicator (y/n) to determine if NSN is a controlled medicinal					
MEDICINAL_ISSUE_DATE	MEDDAT	D	N	MEDICINA	W
SC: DATE OF THE MEDICINAL ISSUE					
MEDICINAL_ISSUE_TIME	MEDTIM	T	N	MEDICINA	W
SC: Time of medicinal issue					
MEDICINAL_NSN	MEDNSN	C,13	N	MEDICINA	W
SC: National stock number of medicinal issued					
MEDICINAL_NSN_LOCATION	MEDNSNLOC	C,16	N	MEDICINA	W
SC: Location of NSN. "working stock"= controlled med,"bulk"= in storage					
MEDICINAL_PATIENT_NAME	MEDPATIENTN	C,45	N	MEDICINA	W
SC: Name/rank/rate of the patient to which medicinal was issued					
MEDICINAL_PRESCRIPTION_NUMBER	MEDSCRIPNUM	N,7	Y	MEDICINA	W
SC: Number assigned to the prescription issued					
MEDICINAL_QUANTITY_ISSUED	MEDQTYISSUE	C,50	N	MEDICINA	W
SC: DESCRIBES THE QUANTITY OF SPECIFID MEDICINAL ISSUED (ie 30 x 300mg)					
MEMBER_ALLERGY_INDICATOR	MEMALRGYIND	L	N	MEMBER	E
SC: INDICATES IF THE MEMBER HAS ANY ALLERGIES					
MEMBER_BODY_FAT_PERCENT	MEMBODYFAT	N,2	N	MEMBER	E
SC: MEMBER'S PERCENT BODYFAT					
MEMBER_HEIGHT	MEMHT	N,3,1	N	MEMBER	E

SC: MEMBER'S HEIGHT IN INCHES

MEMBER_MEDICAL_SURVEILLANCE_IND MEMMEDSURV L N MEMBER E
SC: INDICATES IF A MEMBER IS PART OF THE MEDICAL SURVEILANCE PROGRAM

MEMBER_RH_ABO_BLOOD_TYPE MEMBLOOTTYP C,25 N MEMBER E
SC: THE MEMBER'S BLOOD TYPE AND RH FACTOR

MEMBER_WEIGHT MEMWGT N,4,1 N MEMBER E
SC: MEMBER'S WEIGHT IN POUNDS (THE NEAREST .5 POUNDS)

MEMBER_WEIGHT_CONTROL_PROGRAM MEMWGTCONTR L N MEMBER E
SC: INDICATES IF THE MEMBER IS ON A MANDATORY WEIGHT CONTROL PROGRAM

MISCONDUCT_CODE MISCON N,1 N INJURY W
SC: CODE TO INDICATE MISCONDUCT/ NOT MISCONDUCT

Long Comment :
MISCONDUCT CODES:
1 - MISCONDUCT NOT IN LINE OF DUTY
2 - MISCONDUCT IN LINE OF DUTY
3 - NOT MISCONDUCT

NUMBER_OF_DAYS_LOST LOSSDAY N,3 N INJURY W
SC: INDICATES THE NUMBER OF MAN DAYS LOST DUE TO THE INCIDENT

PEST_CONTOL_TYPE_OF_PEST PEST CON TY C,25 N PEST CON E
SC: Description of the type of pest affected by control action

PEST_CONTROL_ACTION PESTACTION C,25 Y PEST CON E
SC: Description of pest control action taken

PEST_CONTROL_COMMENTS PEST CON CM C,50 N PEST CON E
SC: Comments associated with pest control action

PEST_CONTROL_DATE PEST CON DA D Y PEST CON E
SC: Date of pest control action

PEST_CONTROL_FOLLOW_UP_DATE PEST CON FO D N PEST CON E
SC: Pest control action follow up date

PEST_CONTROL_OPERATOR_INITIAL PEST CON OP C,3 N PEST CON E
SC: Operator initials at the time of pest control log entry

PEST_CONTROL_PESTICIDE_AMOUNT PEST CON PE N,4 N PEST CON E
SC: Amount of pest control pesticide used

PEST_CONTROL_PESTICIDE_TYPE PEST CON PE C,10 N PEST CON E
SC: Type of pest control pesticide used

PEST_CONTROL_PEST_COUNT PEST CON CO N,4 N PEST CON E
SC: Pest control pest count

PEST_CONTROL_SIGNATURE PEST CON SI C,25 N PEST CON E
SC: Pest control action must have authorization signature

PEST_CONTROL_SPACE_SPRAYED PEST CON SP C,25 Y PEST CON E
SC: Description of space in which pest control spraying took place

PHYSICAL_CLINICAL_EVALUATION_TYP PHYCLINEVAL N,2 N PHYSICAL E
SC: CODE TO IDENTIFY THE TYPE(S) OF CLINICAL EVALUATION CONDUCTED

Long Comment :
CLINICAL EVALUATION CODES:

1 - HEAD/NECK/FACE/SCALP	14 - ABDOMEN AND VISCERA
2 - NOSE	15 - ANUS AND RECTUM
3 - SINUSES	16 - ENDOCRINE SYSTEM
4 - MOUTH/THROAT	17 - G-U SYSTEM
5 - EARS(GENERAL)	18 - UPPER EXTREMITIES
6 - DRUMS	19 - FEET
7 - EYES(GENERAL)	20 - LOWER EXTREMITIES
8 - OPTHALMOSCOPIC	21 - SPINE/OTHER MUSCULOSKELETAL
9 - PUPILS	22 - IDENTIFYING BODY MARKS(SCARS,ETC
10 - OCULAR MOBILITY	23 - SKIN, LYMPHATICS
11 - LUNGS/CHEST	24 - NEUROLOGIC
12 - HEART	25 - PSYCHIATRIC
13 - VASCULAR SYSTEM	26 - PELVIC (FEMALE V/R)

PHYSICAL_EXAM_COMMENTS PHYSCOMNT C,120 N PHYSICAL E
SC: COMMENTS REGARDING THE SPECIFIED PHYSICAL EXAM

PHYSICAL_EXAM_DATE PHYEXDAT D Y PHYSICAL E
SC: DATE OF THE LAST EXAM

PHYSICAL_EXAM_DUE_DATE PHYEXDU D N PHYSICAL E
SC: DATE OF THE NEXT EXAM

PHYSICAL_EXAM_FACILITY PHYSFACILIT C,78 N PHYSICAL E
SC: THE NAME/ADDRESS OF THE FACILITY WHERE PHYSICAL EXAM WAS CONDUCTED

PHYSICAL_EXAM_INDICATOR PHYEXIND L N PHYSICAL E
SC: INDICATES ELIGIBILITY FOR A PHYICAL EXAM

PHYSICAL_EXAM_RECOMMENDATIONS PHYSREX C,120 N PHYSICAL E
SC: RECOMMENDATIONS FOR FURTHER PHYSICAL EXAMINATIONS AS NECESSARY

PHYSICAL_EXAM_RESULTS PHYSRESLT C,79 N PHYSICAL E
SC: RESULTS OF THE SPECIFIED PHYSICAL EXAM

PHYSICAL_EXAM_TYPE PHYEXTYP N,2 Y PHYSICAL E
SC: INDICATES THE TYPE OF PHYSICAL EXAM

Long Comment :
PHYSICAL EXAM TYPES:
1 - PHYSICAL
2 - AVIATION
3 - DIVER
4 - SUBMARINE
5 - NUCLEAR
6 - RADIATION PROGRAMS

7 - OPTHOOLOGY
8 - FOOD SERVICE
9 - BARBER
10 - LAUNDRY WORKER
11 - CHT SYSTEM WORKER
12 - GYNECOLOGICAL
13 - PAP
14 - 99: OTHER AS REQUIRED

PHYSICAL_MED_SURVEILLANCE_IND PHYSMEDSURV L N PHYSICAL E
SC: INDICATES IF THE SPECIFIED PHYSICAL EXAM IS PART OF MED SURVEILLANCE

PHYSICAL_PHYSICIAN_NAME PHYSNAME C,45 N PHYSICAL E
SC: NAME/RANK/TITLE OF THE PHYSICIAN CONDUCTING THE SPECIFIED PHYSICAL

PHYSICAL_PURPOSE_FOR_EXAM PHYPURPOSE C,50 N PHYSICAL E
SC: DESCRIBE THE PURPOSE OF THE PHYSICAL EXAM (ANNUAL, DISCHARGE, OCS,ETC)

PHYSICAL_QUALIFICATION_INDICATOR PHYSQUAL L N PHYSICAL E
SC: INDICATES IF MEMBER IS/IS NOT PHYSICALLY QUALIFIED FOR SPECIFIED DUTY

PPD_COMMENTS PPD CMNT C,50 N IMMUNIZA W
SC: Comments concerning crew member PPD

PPD_CONVERTER_INDICATOR PPD CONV IN L N IMMUNIZA W
SC: Indicates if a crew member has had a reaction to the PPD test

PPD_LAST_EVAL_DATE PPD LAST DA D N IMMUNIZA W
SC: Date of last PPDevaluation

PPD_NEXT_EVAL_DATE PPD NEXT DA D N IMMUNIZA W
SC: Date of the next PPD evaluation

PPD_REQUIRED_FOLLOW_UP_COMPLETE PPD REQD FO L N IMMUNIZA W
SC: Indicates if required PPD follow up actions are complete

PPD_SCREEN_DATE PPD SCRN DA D N IMMUNIZA W
SC: Date of the last PPD screen test

PPD_SCREEN_DUE_DATE PPD SCRN DU D N IMMUNIZA W
SC: Date when next PPD screen test is due

PUBLICATION_AUTHOR_OR_ORIG PUB AUTH OR C,25 N MED LIBR E
SC: The publication author's or originator's name or title

PUBLICATION_DATE PUB DATE D N MED LIBR E
SC: Date of the publication

PUBLICATION_NUMBER PUBNBR C,10 Y MED LIBR E
SC: Number of the publication or instruction

PUBLICATION_PUBLISHER_NAME PUB PUBLISH C,25 N MED LIBR E
SC: Name of the publisher of the publication

PUBLICATION_REVISION_CHANGE PUB REV N,2 N MED LIBR E

SC: The most current revision or change to the publication

PUBLICATION_TITLE	PUBTITLE	C,25	Y	MED LIBR	E
SC: Title of the publication or instruction					
RADIATION_CODE	EXCODE	C,2	N	RADEXP	W
SC: INDICATES THE TYPE OF RADIATION EXPOSED					
RAD_BIOASSAY_ACTIVITY	RADBISHPNM	C,25	N	RADEXP	W
SC: NAME OF THE ACTIVITY WHERE THE BIOASSAY WAS PERFORMED					
RAD_BIOASSAY_CHEMICAL_FORM	RADBICFORM	C,30	N	RADEXP	W
SC: THE CHEMICAL FORM OF THE RADIONUCLIDE					
RAD_BIOASSAY_COMMENT_IND	RADBCMTIND	L	N	RADEXP	W
SC: INDICATES IF COMMENTS ARE ASSOCIATED WITH THE BIOASSAY					
RAD_BIOASSAY_DATE	BIODATE	D	N	RADEXP	W
SC: DATE OF THE LAST BIOASSAY					
RAD_BIOASSAY_INDICATOR	BIOIND	L	N	RADEXP	W
SC: INDICATES IF A BIOASSAY HAS BEEN PERFORMED					
RAD_BIOASSAY_INSTRUMENT	RADBIINSTR	C,25	N	RADEXP	W
SC: TYPE/NAME OF THE BIOASSAY INSTRUMENT USED					
RAD_BIOASSAY_LOCATION	RADBILOC	C,25	N	RADEXP	W
SC: LOCATION THE BIOASSAY WAS PERFORMED					
RAD_BIOASSAY_PROBE_DESCRIPTION	RADBIPROBE	C,40	N	RADEXP	W
SC: NAME/TYPE/DESCRIPTION OF THE BIOASSAY PROBE USED					
RAD_BIOASSAY_PROBE_SERIAL_NUMBER	RADBIPROBNU	N,14	N	RADEXP	W
SC: SERIAL NUMBER OF THE BIOASSAY PROBE USED					
RAD_BIOASSAY_PURPOSE	RADBIPUR	C,79	N	RADEXP	W
SC: BRIEFLY DESCRIBES THE PURPOSE FOR THE BIOASSAY					
RAD_BIOASSAY_RADIONUCLIDE_TYPE	RADBIRDCLD	C,6	N	RADEXP	W
SC: THE TYPE OF RADIONUCLIDE USED FOR THE BIOASSAY					
RAD_BIOASSAY_RESULT	RADBIRSLT	N,8	N	RADEXP	W
SC: INDICATES THE RESULTS OF THE BIOASSAY					
RAD_BIOASSAY_SERIAL_NUMBER	RADBISERNUM	N,14	N	RADEXP	W
SC: SERIAL NUMBER OF THE BIOASSAY					
RAD_BIOASSAY_TIME	RADBITM	N,4	N	RADEXP	W
SC: TIME THE BIOASSAY WAS PERFORMED					
RAD_BIOASSAY_TYPE	BIOTYPE	C,1	N	RADEXP	W
SC: CODE TO INDICATE THE TYPE OF BIOASSAY					

Long Comment :
TYPE OF LAST BIOASSAY:
1 - INITIAL

2 - PREPLACEMENT
3 - INTERNAL CONTAMINATION
4 - TERMINATION
5 - OTHER

RAD_BIO_MIN_DETECTABLE_ACTIVITY	RADBIMDA	C,4	N	RADEXP	W
SC: MINIMUM DETECTABLE ACTIVITY OF THE BIOASSAY METERIAL					
RAD_EXPOSURE_EXTREMITY	EXTREM	N,6	N	RADEXP	W
SC: DOSAGE OF EXPOSURE TO THE EXTREMITIES					
RAD_EXPOSURE_SHIP_ADDRESS	EXSHPADDR	C,20	N	RADEXP	W
SC: LOCATION OF THE SHIP					
RAD_EXP_COMMENT	EXPCMNT	C,79	N	RADEXP	W
SC: COMMENTS CONCERNING THE EXPOSURES					
RAD_EXP_COMMENT_INDICATOR	EXCMTID	L	N	RADEXP	W
SC: INDICATES COMMENTS ABOUT EXPOSURE READING					
RAD_EXP_ESTIMATED_INDICATOR	EXESIND	L	N	RADEXP	W
SC: INDICATES EXPOSURE TO RADIATION					
RAD_EXP_LOCATION_SHIP_NAME	EXPSHPNM	C,40	N	RADEXP	W
SC: NAME OF THE SHIP WHERE RADIATION EXPOSURE WAS RECEIVED					
RAD_EXP_QUARTER_NUMBER	EXPQTR	N,7	Y	RADEXP	W
SC: THE AMOUNT OF EXPOSURE RECEIVED FOR THE QUARTER SPECIFIED					
RAD_EXP_RECORD_TYPE	EXRECTYP	C,1	N	RADEXP	W
SC: THE RADIATION RECORD TYPE					

Long Comment :
RECORD TYPE:
I - INITIAL LOAD
R - RECORD AUDIT
A - EXPOSURE ADD
V - VISITOR
T - TRANSFER
Y - ANNUAL AUDIT

RAD_EXP_RESULT_GAMMA	EXGAMRS	N,5	N	RADEXP	W
SC: THE RESULTANT READING OF GAMMA EXPOSURE					
RAD_EXP_RESULT_NEUTRON	EXNEURS	N,5	N	RADEXP	W
SC: RESULTANT EXPOSURE TO NEUTRON RADIATION					
RAD_EXP_SEQUENCE_NUMBER	EXSEQN	N,3	Y	RADEXP	W
SC: SEQUENCE NUMBER TO TRACK MULTIPLE ENTRIES ON THE SAME DATE					
RAD_EXP_SKIN_DOSAGE	EXSKIN	N,5	N	RADEXP	W
SC: AMOUNT OF RADIATION SKIN DOSAGE					
RAD_EXP_START_DATE	EXSTRDT	D	N	RADEXP	W

SC: DATE EXPOSURE PERIOD BEGAN

RAD_EXP_STOP_DATE EXSTPDT D N RADEXP W
SC: DATE EXPOSURE PERIOD ENDED

RAD_EXP_TLD_TYPE TLDTYPE C,4 N RADEXP W
SC: TYPE OF THERMAL LUMINESCENT DEVICE USED TO RECORD RADIATION

Long Comment :
TLD TYPES:
CAFL
LIF2
LIF4
FILM
OTHR

RAD_EXP_TOTAL_LIFE_NUMERIC EXTLIFE N,7 N RADEXP W
SC: RADIATION EXPOSURE LIFE TO DATE

RAD_EXP_TOTAL_LIFE_TO_DATE EXTL2DT N,6 N RADEXP W
SC: A TOTAL OF LIFETIME RADIATION EXPOSURE TO A GIVEN DATE

RAD_EXP_TOTAL_PERIOD_COUNT EXTOTPD N,6 N RADEXP W
SC: TOTAL OF EXPOSURES FOR THE PERIOD

RAD_EXP_VISITOR_MEMBER_INDICATOR VISTIN L N RADEXP W
SC: INDICATES WHETHER CREWMEMBER OR VISITOR

RAD_NON_REPORTING_VISITOR_IND NORPTVIS L N RADEXP W
SC: INDICATES IF VISITOR'S ORGANIZATION TRACKS EXPOSURES

RAD_PERMISSIBLE_LIFETIME_COUNT RADPERMEXP N,7 N RADEXP W
SC: LIFETIME RADIATION EXPOSURE COUNT

RAD_TOTAL_EXPOSURE TOTEXP N,6 N RADEXP W
SC: TOTALS OF ALL EXPOSURES FOR THE PERIOD

RETURN_DATE RTNDAT D N INJURY W
SC: ESTIMATED DATE OF MEMBER'S RETURN TO DUTY STATUS

SAFETY_HAZARD_INDICATOR SAF HAZ L N INJURY W
SC: INDICATES IF THE INCIDENT REVEALS A SAFETY HAZARD REQUIRING ACTION

SICKCALL_BLOOD_PRESSURE_SYSTOLC SICKBPSYS N,3 N SICKCALL W
SC: SYSTOLIC BLOOD PRESSURE

SICKCALL_BLOOD_PRESS_DIASTOLIC SICKBPDIAS N,3 N SICKCALL W
SC: DIASTOLIC BLOOD PRESSURE

SICKCALL_BODY_TEMP SICKBODTMP N,5 N SICKCALL W
SC: MEMBER'S BODY TEMP DURING AT SICKCALL

SICKCALL_DATE SICKDAT D Y SICKCALL W
SC: DATE OF THE SPECIFIC SICKCALL

SICKCALL_DISPOSITION_COMMENTS	SICKDISPCOM	C,120	N	SICKCALL	W
SC: COMMENTS CONCERNING THE MEMBER'S MEDICAL DISPOSITION					
SICKCALL_DISPOSITION_TYPE	SICKDISTYP	N,1	N	SICKCALL	W
SC: THE DISPOSITION TYPE OF THE CREWMEMBER AT SICKCALL					
SICKCALL_ESTIMATED_DAYS	SICKESTDAY	N,3	N	SICKCALL	W
SC: ESTIMATED NUMBER OF DAYS FOR CONDITION TO EXIST					
SICKCALL_FOLLOW_UP_DATE	SICKFOLLOWD	D	N	SICKCALL	W
SC: FOLLOW UP DATE FOR THE MEMBER IF REQUIRED					
SICKCALL_FOLLOW_UP_TIME	SICKFOLLOWT	T	N	SICKCALL	W
SC: SCHEDULED TIME OF THE FOLLOW UP VISIT					
SICKCALL_MED_FACILITY_LOCATION	SICKFACLOC	C,50	N	SICKCALL	W
SC: LOCATION OF THE MEDICAL FACILITY CONDUCTING THE SICK CALL					
SICKCALL_PULSE_RATE	SICKPULSRT	N,3	N	SICKCALL	W
SC: MEMBER'S PULSE RATE					
SICKCALL_RESPIRATION	SICKRESPRT	N,3	N	SICKCALL	W
SC: MEMBER'S RESPIRATORY RATE DURING THE ENCOUNTER					
SICKCALL_START_TIME	SICKSTART	T	Y	SICKCALL	W
SC: TIME THE MEDICAL ENCOUNTER BEGAN DURING SICKCALL					
SICKCALL_TREATMENT_COMPLETE_IND	SICKTRMTCOM	L	N	SICKCALL	W
SC: INDICATES IF THE MEDICAL TREATMENT WAS COMPLETED					
SICKCALL_VIA_TRANSPORTATION	SICKVIATRA	C,20	N	SICKCALL	W
SC: INDICATES IF THE MEMBER WAS TRANSPORTED TO THE SICK CALL LOCATION					
UNDER_THE_INFLUENCE_CODE	UND INF	N,1	N	INJURY	W
SC: INDICATES IF THE SUBJECT WAS UNDER THE INFLUENCE OF SOME TYPE					

Long Comment :
UNDER THE INFLUENCE CODES:
1 - ALCOHOL
2 - BARBITUATES
3 - NARCOTICS
4 - OTHER AS SPECIFIED
5 - NOT UNDER THE INFLUENCE
6 - NOT ABLE TO DETERMINE

WATER_BACTERIA_TEST_RESULTS	WTRBAC	C,3	N	WATER	E
SC: RESULT OF WATER BACTERIA TEST (POS OR NEG)					
WATER_TEST_COMMENT	WTRCMNT	C,79	N	WATER	E
SC: COMMENTS CONCERNING THE WATER TEST					
WATER_TEST_DATE	WTRTESTDAT	D	N	WATER	E
SC: DATE OF THE WATER TEST					
WATER_TEST_LOCATION	WTRLOC	C,50	N	WATER	E

SC: DESCRIPTION OF THE WATER SOURCE TESTED

WATER_TEST_SEQUENCE_NUMBER	WTRSAMPNBR	N,2	Y	WATER	E

SC: NUMERIC VALUE OF THE WATER TEST SOURCE

WATER_TEST_SOURCE	WTRSRC	C,25	N	WATER	E

SC: THE SOURCE OF THE WATER SAMPLE TESTED

RULE REPORT FOR MEDICAL - VERSION 2.11

Rules for HEAT EXPOSURE

```
IF HEAT_EXP_PHEL_OPERATOR_NUMBER
 > 1
THEN REPEAT ATTRIBUTES
```

Rules for IMMUNIZATION

```
IF OTHER_INDICATOR
 > 1
THEN REPEAT OTHER ATTRIBUTES
```

Rules for INJURY

```
IF INCIDENT_WITNESS_NAME
 > 1
THEN REPEAT ALL INCIDENT_WITNESS
```

Rules for LAB TESTS

```
IF OTHER_LAB_STUDIES_1
 > 1
THEN REPEAT ALL "OTHER" ATTRIBUTES
```

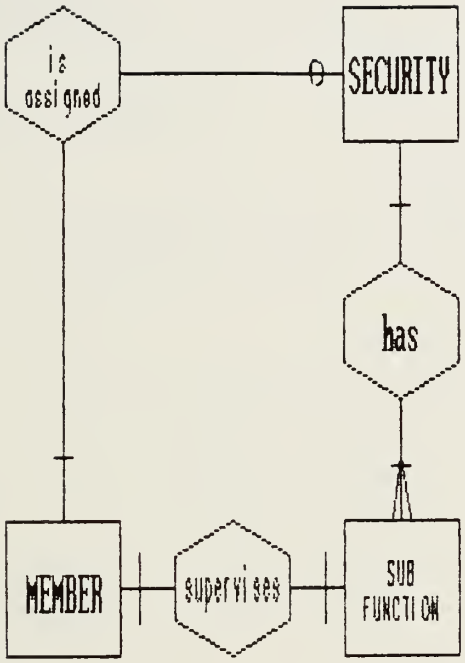
Rules for RADIATION EXPOSURE

```
IF RAD_EXP_QUARTER_NUMBER
 = 1,2,3,4
THEN REPEAT Q
```

APPENDIX E

SECURITY ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the SAFETY function as discussed in Chapter IV.


is
assigned
SECURITY
has
MEMBER
supervises
SUB
FUNCTION

STRUCTURE REPORT FOR SECURITY - VERSION 2.11

```
MEMBER =
     SECURITY_MEMBER_SSN
   + SECURITY_MEMBER_DIVISION
   + SECURITY_MEMBER_NAME
   + SECURITY_MEMBER_SUB-FUNCTION

SECURITY =
     SECURITY_OFFICER_NAME
   + SECURITY_OFFICER_PHONE
   + SECURITY_OFFICE_LOCATION

SUBFUNCTION =
     SECURITY_SUBFUNCTION_NAME
```

ATTRIBUTE REPORT FOR SECURITY - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
SECURITY_MEMBER_DIVISION	SECMBRDIV	C,25	N	MEMBER E
SC: DIVISION TO WHICH A MEMBER IS ASSIGNED				
SECURITY_MEMBER_NAME	SECMBRNAM	C,45	N	MEMBER E
SC: THE NAME OF A MEMBER IN THE COMMAND'S SECURITY PROGRAM				
SECURITY_MEMBER_SSN	SECMBRSSN	N,12	Y	MEMBER E
SC: A SPECIFIC MEMBER'S SOCIAL SECURITY NUMBER FOR RECORD AND TRACKING				
SECURITY_MEMBER_SUB-FUNCTION	SECMBRSUBFU	C,25	N	MEMBER E
SC: THE SUB-FUNCTION THAT A MEMBER IS ASSIGNED TO.				

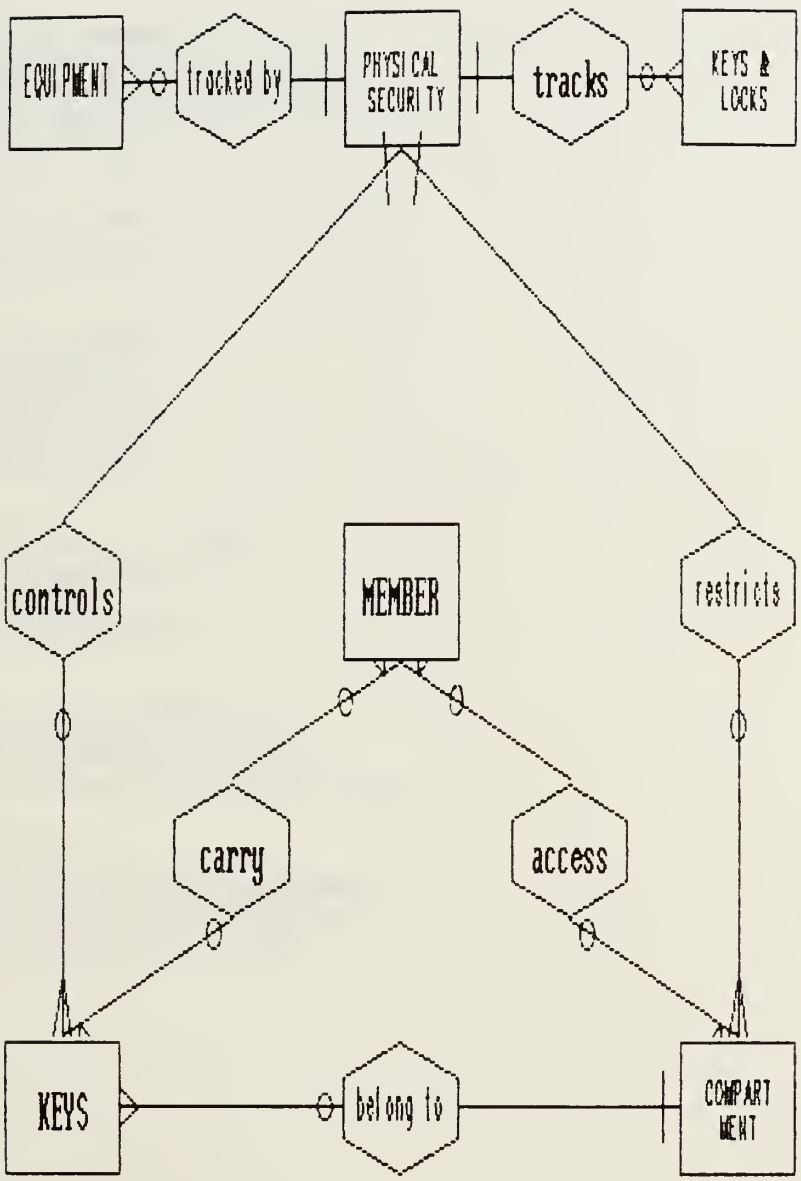
Long Comment :
A MEMBER MAY BE ASSIGNED TO A SECURITY SUB-FUNCTION, SUCH AS PRP, EITHER AS A PART OF THAT SUB-FUNCTION (i.e., PRP MEMBER) OR AS A SUPERVISOR OF THAT SUB-FUNCTION. FOR EXAMPLE, THE OPERATIONS OFFICER MAY E ASSIGNED TO SUPERVISE THE VISITOR CONTROL SUB-FUNCTION OF THE SECURITY PROGRAM.

SECURITY_OFFICER_NAME	SECOFF	C,50	Y	SECURITY E
SC: NAME AND RANK OF THE COMMAND SECURITY OFFICER				
SECURITY_OFFICER_PHONE	SECOFFPHON	N,5	N	SECURITY E
SC: THE PHONE NUMBER OF THE COMMAND SECURITY OFFICE				
SECURITY_OFFICE_LOCATION	SECOFFLOCA	C,25	N	SECURITY E
SC: LOCATION OF THE COMMAND SECURITY OFFICE				
SECURITY_SUBFUNCTION_NAME	SEC SUB NAM	C,30	Y	SUBFUNCT E
SC: Name of security subfunction				

APPENDIX F

PHYSICAL SECURITY ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the PHYSICAL SECURITY sub-function as discussed in Chapter IV.


EQUIPMENT
tracked by
PHYSICAL SECURITY
tracks
KEYS & LOCKS
controls
MEMBER
restricts
carry
access
KEYS
belong to
COMPARTMENT

STRUCTURE REPORT FOR PHYSICAL - VERSION 2.11

```
COMPARTMENT =
     COMPARTMENT_NUMBER
   + COMPARTMENT_ACCESS_AUTHORITY
   + COMPARTMENT_ACCESS_LAST_UPDATE
   + COMPARTMENT_DATE_ACCESS_APPROVED
   + COMPARTMENT_NAME

EQUIPMENT =
     EQUIPMENT_IDENTIFICATION_NUMBER
   + EQUIPMENT_LOCATION

KEYS =
     KEY_SERIAL_NUMBER
   + KEY_COPY_NUMBER
   + KEY_ISSUED_TO_NAME
   + KEY_ISSUE_DATE
   + KEY_LOCKER_NUMBER
   + KEY_RETURN_DATE

KEYS & LOCKS =
     KEY/LOCK_SERIAL_NUMBER
   + KEY/LOCK_LOCATION
   + KEY/LOCK_TYPE
   + KEY_CUSTODIAN_NAME

MEMBER =
     PHYSICAL_MEMBER_NAME
   + PHYSICAL_MEMBER_DIVISION
   + PHYSICAL_MEMBER_WORKCENTER
   + PHYSICAL_MEMBER_WORKCENTER_PHONE

PHYSICAL SECURITY =
     PHYSICAL_SUPERVISOR_NAME
   + PHYSICAL_SUPERVISOR_DEPARTMENT
   + PHYSICAL_SUPERVISOR_LOCATION
   + PHYSICAL_SUPERVISOR_PHONE
```

ATTRIBUTE REPORT FOR PHYSICAL - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
COMPARTMENT_ACCESS_AUTHORITY	COMPACCAUTH	C,50	N	COMPARTM E
SC: NAME,RANK/RATE OF PERSON AUTHORIZING ACCESS TO A SPECIFIC COMPARTMENT				
COMPARTMENT_ACCESS_LAST_UPDATE	COMPUPDAT	D	N	COMPARTM E
SC: DATE WHEN THE COMPARTMENT ACCSS LIST WAS LAST UPDATED				
COMPARTMENT_DATE_ACCESS_APPROVED	COMPACCDAT	D	N	COMPARTM E
SC: DATE A MEMBER WAS AUTHORIZED ACCESS TO A SPECIFIC COMPARTMENT				
COMPARTMENT_NAME	COMP NAME	C,25	N	COMPARTM E
SC: Name of compartment being restricted				
COMPARTMENT_NUMBER	COMP NUM	C,20	Y	COMPARTM E
SC: Number of compartment being restricted				
EQUIPMENT_IDENTIFICATION_NUMBER	EQUIP ID NU	C,35	Y	EQUIP E
SC: Identification number of the equipment item				
EQUIPMENT_LOCATION	EQUIP LOC	C,30	N	EQUIP E
SC: Location (compartment) of equipment item				
KEY/LOCK_LOCATION	KEY LOCK LO	C,20	N	KEYS & L E
SC: Location (compartment) of key or lock on the ship				
KEY/LOCK_SERIAL_NUMBER	KEY LOCK SE	C,15	Y	KEYS & L E
SC: Serial number of key or lock which is being controlled				
KEY/LOCK_TYPE	KEY LOCK TY	C,4	N	KEYS & L E
SC: Indicates if the item is a key or lock				
KEY_COPY_NUMBER	KEYCOPYNUM	N,4	N	KEYS E
SC: THE NUMBER OF THE COPY FOR A SPECIFIC SERIAL NUMBER (I.E., COPY #4)				
KEY_CUSTODIAN_NAME	KEYCUSTNAM	C,50	N	KEYS & L E
SC: THE NAME AND RANK/RATE OF THE CUSTODIAN OF A SPECIFIC KEY/LOCK				
KEY_ISSUED_TO_NAME	KEYISSNAM	C,50	N	KEYS E
SC: THE NAME AND RANK OF THE MEMBER ISSUED A SPECIFIC KEY				
KEY_ISSUE_DATE	KEYISSDAT	D	N	KEYS E
SC: DATE OF ISSUE OF A SPECIFIC KEY TO A MEMBER				
KEY_LOCKER_NUMBER	KEYLKRNUM	N,4	N	KEYS E
SC: WHEN NOT ISUED TO A MEMBER, THE LOCKER A SPECIFIC KEY IS STORED IN				
KEY_RETURN_DATE	KEYRETDAT	D	N	KEYS E
SC: DATE A SPECIFIC KEY WAS RETURNED				
KEY_SERIAL_NUMBER	KEY SER NUM	C,10	Y	KEYS E
SC: Serial number of key				

PHYSICAL_MEMBER_DIVISION PHYSMBRDIV C,15 N MEMBER E
SC: THE DIVISION TO WHICH A SPECIFIC MEMBE IS ASSIGNED

PHYSICAL_MEMBER_NAME PHYSMBRNAM C,45 Y MEMBER E
SC: THE NAME OF A SPECIFIC MEMEBR IN THE PHYSICAL SECURITY PROGRAM

PHYSICAL_MEMBER_WORKCENTER PHYMBRWKCTR C,15 N MEMBER E
SC: THE WORKCENTER TO WHICH A SPECIFIC MEMBER IS ASSIGNED

PHYSICAL_MEMBER_WORKCENTER_PHONE PHYMBRPHON N,5 N MEMBER E
SC: THE MEMBER'S WORKCENTER PHONE NUMBER

PHYSICAL_SUPERVISOR_DEPARTMENT PHYSUPVRDEP C,15 N PHYSICAL E
SC: THE DEPARTMENT TO WHICH THE PHYSICAL SECURITY SUPRVISOR IS ASSIGNED

PHYSICAL_SUPERVISOR_LOCATION PHYSUPVRLOC C,25 N PHYSICAL E
SC: THE LOCATION OF THE PHYSICAL SECURITY SUPERVISOR'S OFFICE

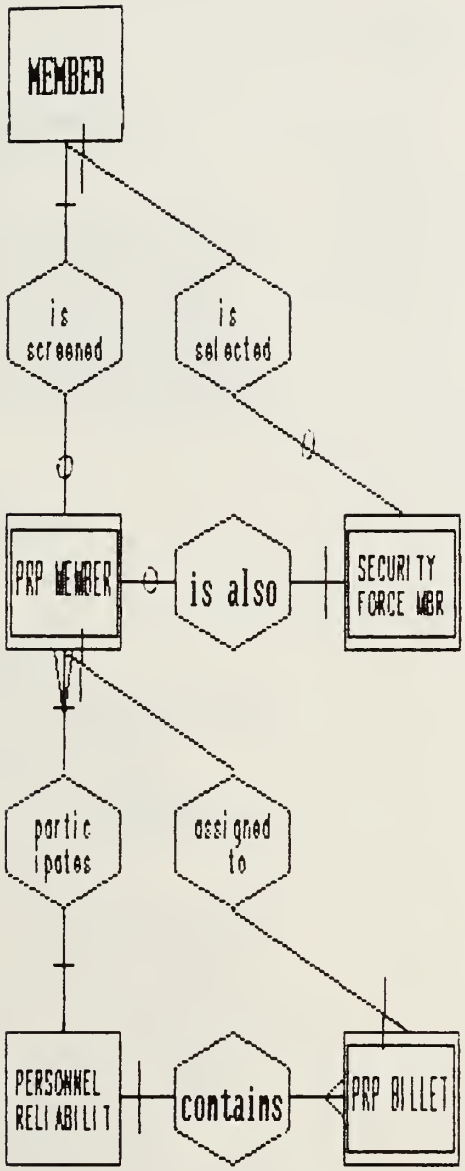
PHYSICAL_SUPERVISOR_NAME PHYSUPVRNAM C,45 Y PHYSICAL E
SC: NAME OF THE MEMBER SUPERVISING THE PHYSICAL SECURITY PROGRAM

PHYSICAL_SUPERVISOR_PHONE PHYSUPVRPHO N,4 N PHYSICAL E
SC: THE PHONE NUMBER OF THE PHYSICAL SECURITY SUPERVISOR'S OFFICE

APPENDIX G

PERSONNEL RELIABILITY PROGRAM ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the PERSONNEL RELIABILITY PROGRAM sub-function as discussed in Chapter IV.


MEMBER
is screened
is selected
PRP MEMBER
is also
SECURITY FORCE MBR
partic ipates
assigned to
PERSONNEL RELIABILIT
contains
PRP BILLET

STRUCTURE REPORT FOR PRP - VERSION 2.11

```
MEMBER =
      PRP_MEMBER_SSN
    + PRP_MEMBER_DEPARTMENT
    + PRP_MEMBER_DIVISION
    + PRP_MEMBER_NAME

PERSONNEL RELIABILITY PROGRAM =
      PRP_CERTIFYING_OFFICER_AUTHORITY
    + PRP_CERTIFYING_OFFICER_NAME
    + PRP_CERTIFYING_OFFICER_RANK
    + PRP_CERTIFYING_OFFICER_TITLE
    + PRP_CERTIFYING_OFF_DESIG_DATE
    + PRP_CONTROLLED_BILLETS_REQUIRED
    + PRP_CRITICAL_BILLETS_REQUIRED

PRP BILLET =
      PRP_BILLET_NAME
    + PRP_ASSIGNMENT_DATE
    + PRP_BILLET_TYPE

PRP MEMBER =
      PRP_ASSIGNMENT_STATUS
    + PRP_BADGE_NUMBER
    + PRP_CERTIFICATION_DATE
    + PRP_CERTIFYING_AUTHORITY_TITLE
    + PRP_CERT_AUTHORITY_NAME
    + PRP_CERT_AUTHORITY_RANK
    + PRP_CERT_AUTH_ORGANIZATION
    + PRP_CERT_AUTH_SIGNATURE_IND
    + PRP_EXCLUSION_ACCESS_CODE
    + PRP_KEY_ACCESS_CODE
    + PRP_MEDICAL_SCREEN_DATE
    + PRP_MED_SCREEN_AUTHORITY_NAME
    + PRP_MED_SCRN_AUTHORITY_RANK
    + PRP_MED_SCRN_AUTHORITY_TITLE
    + PRP_MED_SCRN_AUTH_ORGANIZATION
    + PRP_MED_SCRN_AUTH_SIGNATURE_IND
    + PRP_PERMANENT_REMOVAL_DATE
    + PRP_PERMANENT_REMOVAL_REASON
    + PRP_PERMANENT_REMOVAL_TIME
    + PRP_REINSTATEMENT_DATE
    + PRP_REINSTATEMENT_TIME
    + PRP_SECURITY_SCREEN_AUTH_NAME
    + PRP_SECURITY_SCREEN_AUTH_TITLE
    + PRP_SECURITY_SCREEN_DATE
    + PRP_SEC_SCREEN_AUTHORITY_RANK
    + PRP_SEC_SCREEN_AUTH_ORGANIZATION
    + PRP_SEC_SCRN_AUTH_SIGNATURE_IND
    + PRP_TEMPORARY_REMOVAL_DATE
    + PRP_TEMP_REMOVAL_REASON
    + PRP_TEMP_REMOVAL_TIME
    + PRP_URINE_SCREEN_DATE
    + PRP_URINE_SCRN_AUTHORITY_NAME
```

```
   + PRP_URINE_SCRN_AUTH_RANK
   + PRP_URIN_SCRN_AUTH_ORGANIZATION
   + PRP_URIN_SCRN_AUTH_SIGNATURE_IND
   + PRP_URIN_SCRN_AUTH_TITLE

SECURITY FORCE MBR =
     SECURITY_FORCE_BILLET_NAME
   + SECURITY_FORCE_DUTY_SECTION
   + SECURITY_FORCE_AUTHORITY_NAME
   + SECURITY_FORCE_AUTHORITY_RANK
   + SECURITY_FORCE_BILLET_TYPE
   + SECURITY_FORCE_DATA_UPDATE_DATE
   + SECURITY_FORCE_DATA_UPDATE_NAME
   + SECURITY_FORCE_STATUS_DATE
   + SECURITY_FORCE_STATUS_IND
   + SECURITY_FORCE_WEAPON_QUAL_DATE
   + SECURITY_FORCE_WEAPON_QUAL_TYPE
   + SECURITY_FORCE_WPN_REQUAL_DATE
   + SEC_FORCE_AUTH_SIGNATURE_DATE
   + SEC_FORCE_AUTH_SIGNATURE_IND
   + SEC_FORCE_NUMBER_WEAPON_QUALS
```

ATTRIBUTE REPORT FOR PRP - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
PRP_ASSIGNMENT_DATE	PRP ASSIGNM	D	N	PRP BILL W
SC: Date billet was assigned to member				
PRP_ASSIGNMENT_STATUS	PRP ASSIGN	C,8	Y	PRP MEMB W
SC: Assignment status is either final or interim				
PRP_BADGE_NUMBER	PRP BADGE	N,10	Y	PRP MEMB W
SC: Serial number of badge assigned to PRP member				
PRP_BILLET_NAME	PRP BILLET	C,25	Y	PRP BILL W
SC: Name of PRP billet				
PRP_BILLET_TYPE	PRP BILLET	C,10	N	PRP BILL W
SC: Type of billet: either Critical or Controlled				
PRP_CERTIFICATION_DATE	PRP CERT DA	D	N	PRP MEMB W
SC: Date member was certified as a PRP member				
PRP_CERTIFYING_AUTHORITY_TITLE	PRP CERT AU	C,15	N	PRP MEMB W
SC: Title of the PRP certifying authority				
PRP_CERTIFYING_OFFICER_AUTHORITY	PRP CERT OF	C,15	N	PRP E
SC: Name of person with authority to designate the certifying officer				
PRP_CERTIFYING_OFFICER_NAME	PRP CERT OF	C,30	N	PRP E
SC: Name of officer in charge of certifying members of the PRP				
PRP_CERTIFYING_OFFICER_RANK	PRP CERT OF	C,10	N	PRP E
SC: Rank of certifying officer for the PRP				
PRP_CERTIFYING_OFFICER_TITLE	PRP CERT OF	C,20	N	PRP E
SC: Title of certifying officer for the PRP				
PRP_CERTIFYING_OFF_DESIG_DATE	PRP CERT OF	D	N	PRP E
SC: Date certifying officer for the PRP was designated				
PRP_CERT_AUTHORITY_NAME	PRP CERT AU	C,25	N	PRP MEMB W
SC: Name of the PRP certifying authority				
PRP_CERT_AUTHORITY_RANK	PRP CERT AU	C,10	N	PRP MEMB W
SC: Rank of the PRP certifying authority				
PRP_CERT_AUTH_ORGANIZATION	PRP CERT AU	C,25	N	PRP MEMB W
SC: Organization of the PRP certifying authority				
PRP_CERT_AUTH_SIGNATURE_IND	PRP CERT AU	L	N	PRP MEMB W
SC: Signature of the PRP certifying authority obtained				
PRP_CONTROLLED_BILLETS_REQUIRED	PRP CONT BI	N,3	N	PRP E
SC: Number of controlled PRP billets required for this command				

PRP_CRITICAL_BILLETS_REQUIRED	PRP CRIT BI	N,3	N	PRP	E
SC: Number of critical PRP billets required for this command					
PRP_EXCLUSION_ACCESS_CODE	PRP EXCLUSI	C,15	N	PRP MEMB	W
SC: Exclusion area access (Unrestricted/restricted/visitor)					
PRP_KEY_ACCESS_CODE	PRP KEY ACC	C,10	N	PRP MEMB	W
SC: Authorized access to primary or secondary keys to exclusion area					
PRP_MEDICAL_SCREEN_DATE	PRP MED SCR	D	N	PRP MEMB	W
SC: Date medical screen was completed					
PRP_MED_SCREEN_AUTHORITY_NAME	PRP MED SCR	C,25	N	PRP MEMB	W
SC: Name of the medical screen authority					
PRP_MED_SCRN_AUTHORITY_RANK	PRP MED SCR	C,15	N	PRP MEMB	W
SC: Rank of the medical screening authority					
PRP_MED_SCRN_AUTHORITY_TITLE	PRP MED SCR	C,15	N	PRP MEMB	W
SC: Title of the medical screening authority					
PRP_MED_SCRN_AUTH_ORGANIZATION	PRP MED SCR	C,25	N	PRP MEMB	W
SC: Organization of the medical screening authority					
PRP_MED_SCRN_AUTH_SIGNATURE_IND	PRP MED SCR	L	N	PRP MEMB	W
SC: Signature of the medical screening authority					
PRP_MEMBER_DEPARTMENT	PRPMBRDEPT	C,15	N	MEMBER	E
SC: THE DEPARTMENT TO WHICH A SPECIFIC MEMBER IS ASSIGNED					
PRP_MEMBER_DIVISION	PRPMBRDIV	C,15	N	MEMBER	E
SC: DIVISION TO WHICH A SPECIFIC MEMBER IS ASSIGNED					
PRP_MEMBER_NAME	PRPMBRNAM	C,45	N	MEMBER	E
SC: THE MEMBER'S FIRST, LAST NAME AND MIDDLE INITIAL					
PRP_MEMBER_SSN	PRPMBRSSN	N,12	Y	MEMBER	E
SC: MEMBER'S SOCIAL SECURITY NUMBER					
PRP_PERMANENT_REMOVAL_DATE	PRP PERM RM	D	N	PRP MEMB	W
SC: Date of permanent removal from the PRP					
PRP_PERMANENT_REMOVAL_REASON	PRP PERM RM	C,50	N	PRP MEMB	W
SC: Reason fro permanent removal from the PRP					
PRP_PERMANENT_REMOVAL_TIME	PRP PERM RM	N,4	N	PRP MEMB	W
SC: Time of permanent removal from the PRP					
PRP_REINSTATEMENT_DATE	PRP REINSTA	D	N	PRP MEMB	W
SC: Date of reinstatement into the PRP					
PRP_REINSTATEMENT_TIME	PRP REINSTA	N,4	N	PRP MEMB	W
SC: Time of reinstatement into the PRP					
PRP_SECURITY_SCREEN_AUTH_NAME	PRPSEC SCRN	C,25	N	PRP MEMB	W
SC: Name of person validating security screen					

PRP_SECURITY_SCREEN_AUTH_TITLE	PRPSEC SCRN	C,25	N	PRP MEMB	W
SC: Title of security screen authority					
PRP_SECURITY_SCREEN_DATE	PRPSEC SCRE	D	N	PRP MEMB	W
SC: Date of security screening					
PRP_SEC_SCREEN_AUTHORITY_RANK	PRPSEC SCRN	C,10	N	PRP MEMB	W
SC: Rank of security screen authority					
PRP_SEC_SCREEN_AUTH_ORGANIZATION	PRPSEC SCRN	C,25	N	PRP MEMB	W
SC: Organization of the security screening authority					
PRP_SEC_SCRN_AUTH_SIGNATURE_IND	PRPSEC SCRN	L	N	PRP MEMB	W
SC: Indicates signature of screening authority obtained					
PRP_TEMPORARY_REMOVAL_DATE	PRP TEMP RM	D	N	PRP MEMB	W
SC: Date of temporary removal from the PRP					
PRP_TEMP_REMOVAL_REASON	PRP TEMP RM	C,50	N	PRP MEMB	W
SC: Reason for temporary removal from the PRP					
PRP_TEMP_REMOVAL_TIME	PRP TEMP RM	N,4	N	PRP MEMB	W
SC: Time of temporary removal from the PRP					
PRP_URINE_SCREEN_DATE	PRP URINE S	D	N	PRP MEMB	W
SC: Date of the urinalysis screen					
PRP_URINE_SCRN_AUTHORITY_NAME	PRP URIN SC	C,25	N	PRP MEMB	W
SC: Name of the urinalysis screening authority					
PRP_URINE_SCRN_AUTH_RANK	PRP URIN SC	C,10	N	PRP MEMB	W
SC: Rank of the urinalysis screening authority					
PRP_URIN_SCRN_AUTH_ORGANIZATION	PRP URIN SC	C,25	N	PRP MEMB	W
SC: Organization of the urinalysis screening authority					
PRP_URIN_SCRN_AUTH_SIGNATURE_IND	PRP URIN SC	L	N	PRP MEMB	W
SC: Signature of the urinalysis screening authority obtained					
PRP_URIN_SCRN_AUTH_TITLE	PRP URIN SC	C,15	N	PRP MEMB	W
SC: Title of the urinalysis screening authority					
SECURITY_FORCE_AUTHORITY_NAME	SECFOR AUTH	C,25	N	SECFORMB	W
SC: Name of person who has authority over the security force					
SECURITY_FORCE_AUTHORITY_RANK	SECFOR AUTH	C,10	N	SECFORMB	W
SC: Rank of the security force authority					
SECURITY_FORCE_BILLET_NAME	SECFOR BILL	C,25	Y	SECFORMB	W
SC: Name of Security Force billet					
SECURITY_FORCE_BILLET_TYPE	SECFOR BILL	C,25	N	SECFORMB	W
SC: Identifies type of Security Force billet					
SECURITY_FORCE_DATA_UPDATE_DATE	SECFOR DATA	D	N	SECFORMB	W

SC: Date of the last update to Security Force data

SECURITY_FORCE_DATA_UPDATE_NAME SECFOR DATA C,25 N SECFORMB W
SC: Name of the person who last updated security force data

SECURITY_FORCE_DUTY_SECTION SECFOR DUTY N,1 Y SECFORMB W
SC: Duty section to which security force member is assigned

SECURITY_FORCE_STATUS_DATE SECFOR STAT D N SECFORMB W
SC: Date of security force status report

SECURITY_FORCE_STATUS_IND SECFOR STAT C,1 N SECFORMB W
SC: Status of security force member quals (F=final U=under instruction)

SECURITY_FORCE_WEAPON_QUAL_DATE SECFOR WPN D N SECFORMB W
SC: Date of security force weapon qualification

SECURITY_FORCE_WEAPON_QUAL_TYPE SEC FOR WEA C,25 N SECFORMB W
SC: Type of weapon member qualified for(weapon attributes repeating group)

SECURITY_FORCE_WPN_REQUAL_DATE SECFOR WPN D N SECFORMB W
SC: Projected requalification date for weapon

SEC_FORCE_AUTH_SIGNATURE_DATE SECFOR AUTH D N SECFORMB W
SC: Date of the authority signature

SEC_FORCE_AUTH_SIGNATURE_IND SECFOR AUTH L N SECFORMB W
SC: Signature of the security force authority obtained

SEC_FORCE_NUMBER_WEAPON_QUALS SECFOR WPN N,2 N SECFORMB W
SC: Number of weapons that security force member is qualified on

RULE REPORT FOR PRP - VERSION 2.11

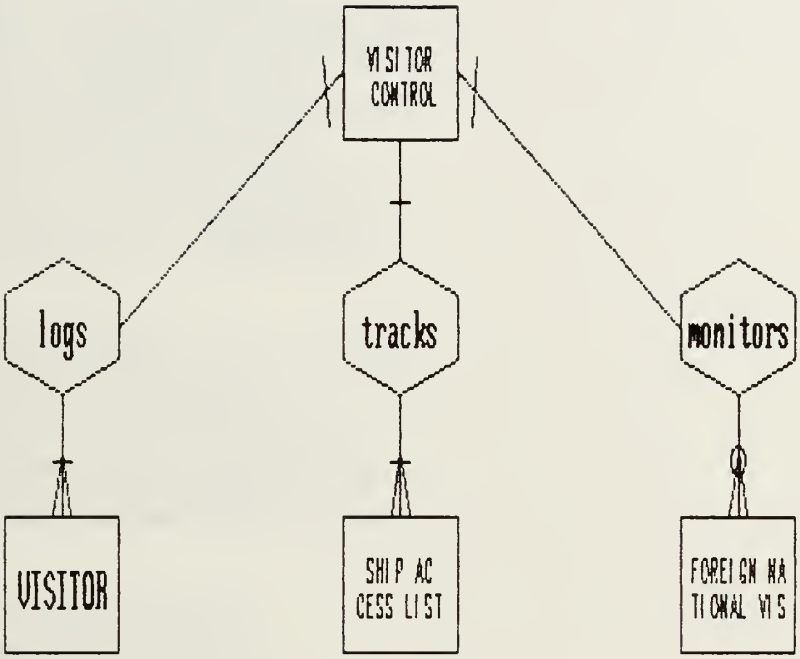
Rules for SECURITY FORCE MBR

IF SEC_FORCE_NUMBER_WEAPON_QUALS
 > 1
THEN REPEAT SECFORCE WPN ATTRIBUTES

APPENDIX H

VISITOR CONTROL ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the VISITOR CONTROL sub-function as discussed in Chapter IV.


VISITOR CONTROL
logs
tracks
monitors
VISITOR
SHIP ACCESS LIST
FOREIGN NATIONAL VIS

STRUCTURE REPORT FOR VISITOR - VERSION 2.11

```
FOREIGN NATIONAL VISITOR =
      FOREIGN_VISITOR_ARRIVAL_DATE
    + FOREIGN_VISITOR_NAME
    + FOREIGN_VISITOR_CITIZENSHIP
    + FOREIGN_VISITOR_COUNTRY
    + FOREIGN_VISITOR_DEPARTURE_DATE
    + FOREIGN_VISITOR_DUAL_CITIZENSHIP
    + FOREIGN_VISITOR_HOST_NAME
    + FOREIGN_VISITOR_HOST_PHONE
    + FOREIGN_VISITOR_INFO_CLEARANCE
    + FOREIGN_VISITOR_POSITION
    + FOREIGN_VISITOR_UPDATED_BY
    + FOREIGN_VISITOR_VISIT_PURPOSE
    + INFORMATION_DISCLOSURE_TYPE
    + INFO_CLEARANCE_AUTHORITY_NAME

SHIP ACCESS LIST =
      INDIVIDUAL_NAME
    + INDIVIDUAL_SOCIAL_SECURITY_NUM
    + INDIVIDUAL_CLEARANCE
    + INDIVIDUAL_ESCORT_REQUIRED
    + INDIVIDUAL_LAST_UPDATED_BY
    + INDIVIDUAL_LAST_UPDATED_DATE
    + INDIVIDUAL_ORGANIZATION
    + INDIVIDUAL_ORGANIZATION_PHONE

VISITOR =
      VISITOR_ARRIVAL_DATE
    + VISITOR_ARRIVAL_TIME
    + VISITOR_BADGE_NUMBER
    + VISITOR_DEPARTURE_TIME
    + VISITOR_DESTINATION
    + VISITOR_ESCORT_NAME
    + VISITOR_NAME
    + VISITOR_ORGANIZATION

VISITOR CONTROL =
      VISITOR_CONTROL_SUPERVISOR_NAME
    + VISITOR_CONTROL_SUPERVISOR_LOCAT
    + VISITOR_CONTROL_SUPERVISOR_PHONE
```

ATTRIBUTE REPORT FOR VISITOR - VERSION 2.11

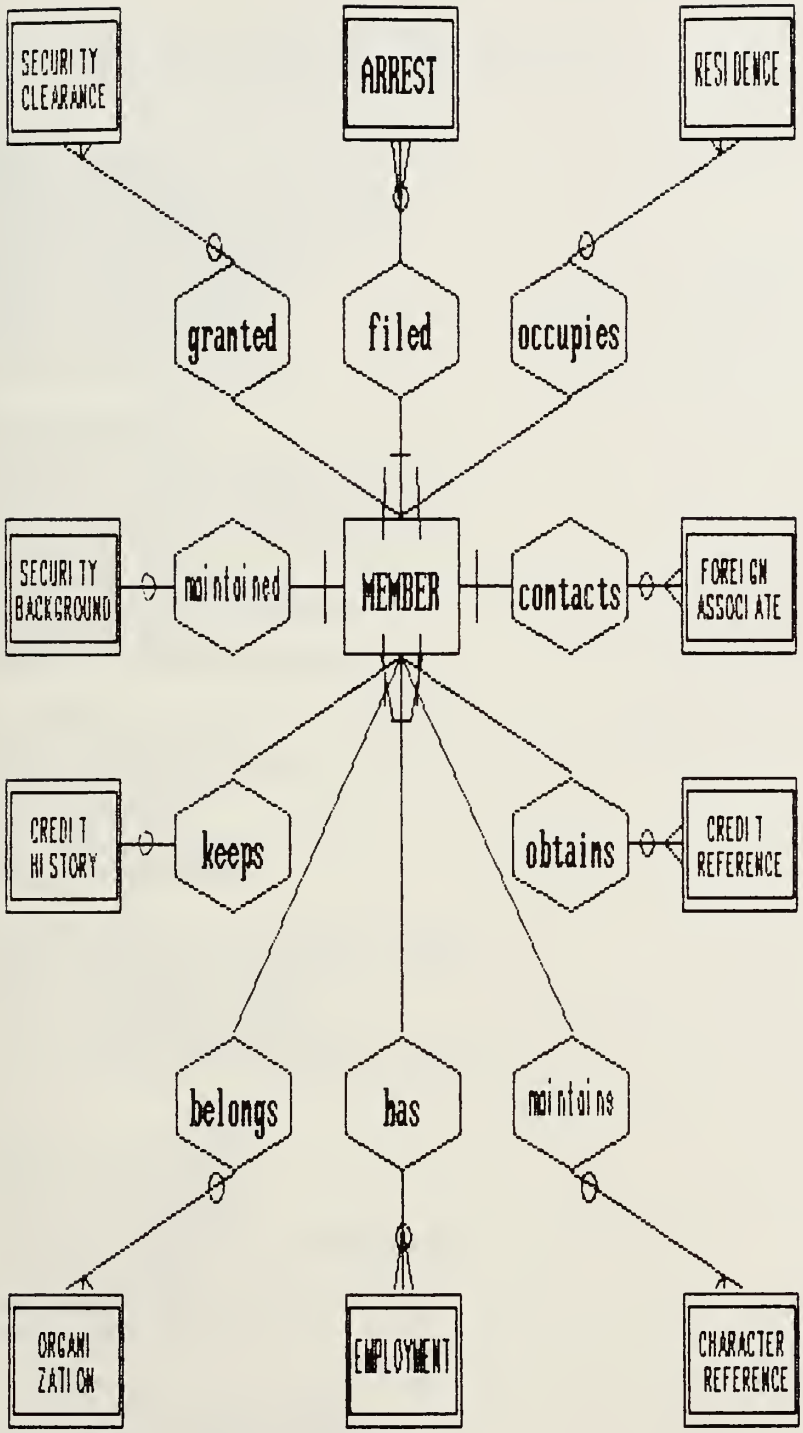
Attribute Name	Alias	Format	Key	Object & Type
FOREIGN_VISITOR_ARRIVAL_DATE	FOREIGN VIS	D	Y	FOREIGN E
SC: Estimated date of arrival of foreign national visitor				
FOREIGN_VISITOR_CITIZENSHIP	FOREIGN VIS	C,30	N	FOREIGN E
SC: Country where foreign national visitor is a citizen				
FOREIGN_VISITOR_COUNTRY	FOREIGN VIS	C,30	N	FOREIGN E
SC: Country where foreign national visitor resides				
FOREIGN_VISITOR_DEPARTURE_DATE	FOREIGN VIS	D	N	FOREIGN E
SC: Estimated departure date of foreing national visitor				
FOREIGN_VISITOR_DUAL_CITIZENSHIP	FOREIGN VIS	L	N	FOREIGN E
SC: Indicates if foreign national visitor holds a dual citizenship				
FOREIGN_VISITOR_HOST_NAME	FOREIGN VIS	C,30	N	FOREIGN E
SC: Name of host of foreign national visitor				
FOREIGN_VISITOR_HOST_PHONE	FOREIGN VIS	C,8	N	FOREIGN E
SC: Phone number of host of foreign national visitor				
FOREIGN_VISITOR_INFO_CLEARANCE	FOREIGN VIS	L	N	FOREIGN E
SC: Indicates if information is cleared for disclosure to foreigners				
FOREIGN_VISITOR_NAME	FOREIGN VIS	C,45	Y	FOREIGN E
SC: Full name of foreign national visitor				
FOREIGN_VISITOR_POSITION	FOREIGN VIS	C,30	N	FOREIGN E
SC: Position description of foreign national visitor				
FOREIGN_VISITOR_UPDATED_BY	FOREIGN VIS	C,3	N	FOREIGN E
SC: ID code of person updating foreign national visitor information				
FOREIGN_VISITOR_VISIT_PURPOSE	FOREIGN VIS	C,30	N	FOREIGN E
SC: Purpose of foreign national visitor's visit				
INDIVIDUAL_CLEARANCE	INDIV CLEAR	C,13	N	SHIP ACC E
SC: Clearance and access of individual				
INDIVIDUAL_ESCORT_REQUIRED	INDIV ESCOR	L	N	SHIP ACC E
SC: Indicates if individual is required to have an escort while on board				
INDIVIDUAL_LAST_UPDATED_BY	INDIV LAST	C,3	N	SHIP ACC E
SC: Identification code of person who updated this record				
INDIVIDUAL_LAST_UPDATED_DATE	INDIV LAST	D	N	SHIP ACC E
SC: Date this record was last updated				
INDIVIDUAL_NAME	INDIVIDUAL_	C,45	Y	SHIP ACC E
SC: Name of individual allowed access to the ship in addition to the crew				

INDIVIDUAL_ORGANIZATION	INDIV ORG	C,25	N	SHIP ACC	E
SC: Organization individual belongs to					
INDIVIDUAL_ORGANIZATION_PHONE	INDIV ORG P	C,12	N	SHIP ACC	E
SC: Phone number of individual's organization					
INDIVIDUAL_SOCIAL_SECURITY_NUM	SSN	C,11	Y	SHIP ACC	E
SC: Social security number or identification number of individual					
INFORMATION_DISCLOSURE_TYPE	INFO DISCLO	C,20	N	FOREIGN	E
SC: Type of info to be disclosed to foreign visitor (class, technical,etc)					
INFO_CLEARANCE_AUTHORITY_NAME	INFO CLEAR	C,30	N	FOREIGN	E
SC: Name of person who cleared the information for disclosure to foreigner					
VISITOR_ARRIVAL_DATE	VIS ARR DAT	D	Y	VIS	E
SC: Date visitor arrived on board the ship					
VISITOR_ARRIVAL_TIME	VIS ARR TIM	T	Y	VIS	E
SC: Time visitor arrived on board the ship					
VISITOR_BADGE_NUMBER	VIS BADGE	C,4	N	VIS	E
SC: Badge number of visitor badge given to visitor					
VISITOR_CONTROL_SUPERVISOR_LOCAT	VISSUPVRLOC	C,25	N	VISITOR	E
SC: LOCATION OF THE VISITOR CONTROL SUPERVISOR'S OFFICE					
VISITOR_CONTROL_SUPERVISOR_NAME	VISSUPVRNAM	C,50	Y	VISITOR	E
SC: THE NAME AND RANK OF THE VISITOR CONTROL PROGRAM SUPERVISOR					
VISITOR_CONTROL_SUPERVISOR_PHONE	VISSUPVRPHO	N,5	N	VISITOR	E
SC: THE PHONE NUMBER OF THE VISITOR CONTROL SUPERVISOR'S OFFICE					
VISITOR_DEPARTURE_TIME	VIS DEP TIM	T	N	VIS	E
SC: Time visitor departed the ship					
VISITOR_DESTINATION	VIS DEST	C,20	N	VIS	E
SC: Destination of visitor on board the ship					
VISITOR_ESCORT_NAME	VIS ESCORT	C,25	N	VIS	E
SC: Name of visitor's escort (if required)					
VISITOR_NAME	VIS NAME	C,45	N	VIS	E
SC: Full name of the visitor					
VISITOR_ORGANIZATION	VIS ORG	C,25	N	VIS	E
SC: Organization the visitor belongs to (if any)					

APPENDIX I

CLEARANCE/ACCESS ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the CLEARANCE/ACCESS sub-function as discussed in Chapter IV.


SECURITY CLEARANCE
ARREST
RESIDENCE
granted
filed
occupies
SECURITY BACKGROUND
maintained
MEMBER
contacts
FOREIGN ASSOCIATE
CREDIT HISTORY
keeps
obtains
CREDIT REFERENCE
belongs
has
maintains
ORGANIZATION
EMPLOYMENT
CHARACTER REFERENCE

STRUCTURE REPORT FOR CLEARANC - VERSION 2.11

```
ARREST =
      ARREST_DATE
    + ARREST_OFFENSE
    + ARRESTING_AGENCY
    + ARRESTING_AGENCY_CITY
    + ARRESTING_AGENCY_STATE
    + ARREST_COURT_CITY
    + ARREST_COURT_NAME
    + ARREST_COURT_STATE
    + ARREST_DISPOSITION

CHARACTER REFERENCE =
      REFERENCE_NAME
    + REFERENCE_ASSOCIATION
    + REFERENCE_ASSOCIATION_FROM_DATE
    + REFERENCE_ASSOCIATION_TO_DATE
    + REFERENCE_CITY
    + REFERENCE_HOME_PHONE
    + REFERENCE_OFFICE_PHONE
    + REFERENCE_STATE
    + REFERENCE_STREET_ADDRESS

CREDIT HISTORY =
      DEBT_DELINQUINCY
    + FILED_FOR_BANKRUPTCY
    + GARNISHED_WAGES
    + REPOSSESSIONS
    + TAX_PURPOSE_LIEN
    + UNPAID_JUDGEMENTS

CREDIT REFERENCE =
      CREDIT_REFERENCE_ACCOUNT_NUMBER
    + CREDIT_REFERENCE_NAME
    + CREDIT_REFERENCE_CITY
    + CREDIT_REFERENCE_STATE
    + CREDIT_REFERENCE_STREET_ADDRESS

EMPLOYMENT =
      EMPLOYED_FROM_DATE
    + EMPLOYED_TO_DATE
    + CIVILIAN_LICENSE
    + EMPLOYER_ADDRESS
    + EMPLOYER_IMMEDIATE_SUPERVISOR
    + EMPLOYER_NAME
    + EMPLOYER_PHONE
    + EMPLOYMENT_POSITION

FOREIGN ASSOCIATE =
      FOREIGN_ASSOCIATE_NAME
    + FOREIGN_ASSOCIATE_ADDRESS
    + FOREIGN_ASSOCIATE_BIRTH_DATE
    + FOREIGN_ASSOCIATE_BIRTH_PLACE
    + FOREIGN_ASSOCIATE_CITIZENSHIP
```

```
   + FOREIGN_ASSOCIATE_RELATIONSHIP

MEMBER =
     CLEARANCE_MEMBER_SSN
   + CLEARANCE_MEMBER_DEPARTMENT
   + CLEARANCE_MEMBER_NAME

ORGANIZATION =
     ORGANIZATION_FROM_DATE
   + ORGANIZATION_NAME
   + ORGANIZATION_CITY
   + ORGANIZATION_STATE
   + ORGANIZATION_STREET_ADDRESS
   + ORGANIZATION_TO_DATE
   + ORGANIZATION_TYPE

RESIDENCE =
     RESIDENCE_FROM_DATE
   + RESIDENCE_TO_DATE
   + NUMBER_OF_ROOMMATES
   + RESIDENCE_CITY
   + RESIDENCE_COUNTRY
   + RESIDENCE_STATE
   + RESIDENCE_STREET_ADDRESS
   + ROOMMATE_CURRENT_CITY
   + ROOMMATE_CURRENT_PHONE
   + ROOMMATE_CURRENT_STATE
   + ROOMMATE_CURRENT_STREET_ADDRESS
   + ROOMMATE_NAME

SECURITY BACKGROUND =
     ALCOHOL_PROBLEMS
   + COMMUNIST_ORGANIZATION_MEMBER
   + DATE_OTHER_NAME_USED
   + FOREIGN_EMPLOYMENT
   + FOREIGN_FINANCIAL_INTERESTS
   + FOREIGN_GOVERNMENT_CONTACT
   + FOREIGN_UNOFFICIAL_TRAVEL
   + ILLEGAL_SUBSTANCE_PURCHASE/PROD
   + ILLEGAL_SUBSTANCE_USE
   + MENTAL_HEALTH_TREATMENT
   + MENTAL_PROBLEMS
   + OTHER_NAMES_USED
   + PRESCRIPTION_DRUG_MISUSE
   + SECURITY_BACKGROUND_REMARKS

SECURITY CLEARANCE =
     CLEARANCE_DATE_GRANTED
   + ACCESS_AUTHORITY
   + ACCESS_COMMAND
   + ACCESS_FROM_DATE
   + ACCESS_LEVEL
   + ACCESS_LEVEL_DATE
   + ACCESS_REMARKS
   + ACCESS_TO_DATE
   + CLEARANCE_ADMINISTRATIVE_COMMENT
```

+ CLEARANCE_AUTHORIZING_COMMAND
+ CLEARANCE_BASIS
+ CLEARANCE_INVESTIGATION_AGENCY
+ CLEARANCE_INVESTIGATION_DATE
+ CLEARANCE_INVESTIGATION_TYPE
+ CLEARANCE_INVEST_CASE_CONTROL_NO
+ CLEARANCE_LAST_UPDATED_BY
+ CLEARANCE_LAST_UPDATED_DATE
+ CLEARANCE_LEVEL
+ CLEARANCE_REMARKS

ATTRIBUTE REPORT FOR CLEARANC - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type	
ACCESS_AUTHORITY	ACC AUTH	C,20	N	SEC CLR	W
SC: Indicates authority for granting access					
ACCESS_COMMAND	ACC COMMAND	C,20	N	SEC CLR	W
SC: Indicates the command granting the member this access level					
ACCESS_FROM_DATE	ACCESS FROM	D	N	SEC CLR	W
SC: Date this access level is effective					
ACCESS_LEVEL	ACCESS LEVE	C,15	N	SEC CLR	W
SC: Level member is cleared for access (e.g. confidential, secret, etc)					
ACCESS_LEVEL_DATE	ACCESS DATE	D	N	SEC CLR	W
SC: Date member was granted this access level					
ACCESS_REMARKS	ACC RMKS	C,30	N	SEC CLR	W
SC: Administrative remarks about this access level					
ACCESS_TO_DATE	ACCESS TO D	D	N	SEC CLR	W
SC: Date this access level expires					
ALCOHOL_PROBLEMS	ALCOHOL PRO	L	N	SEC BACK	W
SC: Indicates if member has ever had any problems related to alcohol					
ARRESTING_AGENCY	ARR AGENCY	C,25	N	ARREST	W
SC: Law enforcement arresting agency					
ARRESTING_AGENCY_CITY	ARR AGENCY	C,25	N	ARREST	W
SC: City of law enforcement agency					
ARRESTING_AGENCY_STATE	ARR AGENCY	C,2	N	ARREST	W
SC: State code of arresting law enforcement agency					
ARREST_COURT_CITY	ARR COURT C	C,25	N	ARREST	W
SC: City of court residing over arrest					
ARREST_COURT_NAME	ARR COURT N	C,40	N	ARREST	W
SC: Name of court residing over arrest					
ARREST_COURT_STATE	ARR COURT S	C,2	N	ARREST	W
SC: State code of court residing over arrest					
ARREST_DATE	ARREST DATE	D	Y	ARREST	W
SC: Date of member's arrest					
ARREST_DISPOSITION	ARR DISP	C,40	N	ARREST	W
SC: Disposition of charges from arrest					
ARREST_OFFENSE	ARREST OFFE	C,25	Y	ARREST	W
SC: Nature of arrest offense					

CIVILIAN_LICENSE	CIVILIAN LI	C,30	N	EMPLOYME	W
SC: Civilian license name gained for or by the civilian employment					
CLEARANCE_ADMINISTRATIVE_COMMENT	CLR ADMIN C	C,100	N	SEC CLR	W
SC: Administrative comments regarding member's clearance					
CLEARANCE_AUTHORIZING_COMMAND	CLR AUTH CO	C,25	N	SEC CLR	W
SC: Name of command authorizing clearance level					
CLEARANCE_BASIS	CLR BASIS	C,15	N	SEC CLR	W
SC: Basis upon which clearance was granted					
CLEARANCE_DATE_GRANTED	CLR DATE	D	Y	SEC CLR	W
SC: Date this clearance level was granted					
CLEARANCE_INVESTIGATION_AGENCY	CLR INVEST	C,25	N	SEC CLR	W
SC: Name of agency performing investigation					
CLEARANCE_INVESTIGATION_DATE	CLR INVEST	D	N	SEC CLR	W
SC: Date investigation for this clearance was completed					
CLEARANCE_INVESTIGATION_TYPE	CLR INVEST	C,15	N	SEC CLR	W
SC: Type of investigation performed for granting this clearance					
CLEARANCE_INVEST_CASE_CONTROL_NO	CLR INVEST	C,15	N	SEC CLR	W
SC: Case control number for clearance investigation					
CLEARANCE_LAST_UPDATED_BY	CLR LAST UP	C,3	N	SEC CLR	W
SC: Identification code of person who last updated this record					
CLEARANCE_LAST_UPDATED_DATE	CLR LAST UP	D	N	SEC CLR	W
SC: Date this record was last updated					
CLEARANCE_LEVEL	CLR LEVEL	C,15	N	SEC CLR	W
SC: Level of clearance for member (e.g. confidential, secret)					
CLEARANCE_MEMBER_DEPARTMENT	CLRNCMBRDEP	C,25	N	MEMBER	E
SC: THE DEPARTMENT TO WHICH A SPECIFIC MEMBER IS ASSIGNED					
CLEARANCE_MEMBER_NAME	CLRNCMBRNAM	C,50	N	MEMBER	E
SC: THE MEMBER'S FIRST, LAST NAME AND MIDDLE INITIAL					
CLEARANCE_MEMBER_SSN	CLRNCMBRSSN	N,12	Y	MEMBER	E
SC: A MEMBER'S SOCIAL SECURITY NUMBER FOR TRACKING PURPOSES					
CLEARANCE_REMARKS	CLR REMARKS	C,50	N	SEC CLR	W
SC: Remarks regarding member's clearance level					
COMMUNIST_ORGANIZATION_MEMBER	COMM ORG ME	L	N	SEC BACK	W
SC: Indicates if a member has ever been a member of a communist org.					
CREDIT_REFERENCE_ACCOUNT_NUMBER	CR REF ACCT	C,25	Y	CREDIT R	W
SC: Account number of member's credit reference					
CREDIT_REFERENCE_CITY	CR REF CITY	C,25	N	CREDIT R	W
SC: City where credit reference is located					

CREDIT_REFERENCE_NAME	CREDIT REF	C,25	Y	CREDIT R	W
SC: Name of credit reference					
CREDIT_REFERENCE_STATE	CR REF STAT	C,2	N	CREDIT R	W
SC: State code where credit reference is located					
CREDIT_REFERENCE_STREET_ADDRESS	CR REF STRE	C,25	N	CREDIT R	W
SC: Street address of credit reference					
DATE_OTHER_NAME_USED	DATE OTHER	D	N	SEC BACK	W
SC: Date other name was used					
DEBT_DELINQUINCY	DEBT DELINQ	L	N	CREDIT H	W
SC: Indicates if member has any delinquent debts					
EMPLOYED_FROM_DATE	EMPLOYED FR	D	Y	EMPLOYME	W
SC: Date member started this employment					
EMPLOYED_TO_DATE	EMPL TO DAT	D	Y	EMPLOYME	W
SC: Date member left this employment					
EMPLOYER_ADDRESS	EMPL ADDRES	C,45	N	EMPLOYME	W
SC: Address of employer					
EMPLOYER_IMMEDIATE_SUPERVISOR	EMPL IMMED	C,30	N	EMPLOYME	W
SC: Name of immediate supervisor at this employment					
EMPLOYER_NAME	EMPL NAME	C,25	N	EMPLOYME	W
SC: Name of employer					
EMPLOYER_PHONE	EMPL PHONE	C,12	N	EMPLOYME	W
SC: Phone number of employer					
EMPLOYMENT_POSITION	EMPLOYMENT	C,30	N	EMPLOYME	W
SC: Position member filled at employment place					
FILED_FOR_BANKRUPTCY	BANKRUPTCY	L	N	CREDIT H	W
SC: Indicates if member has ever filed for bankruptcy					
FOREIGN_ASSOCIATE_ADDRESS	FOR ASSOC A	C,45	N	FOREIGN	W
SC: Current address of foreign associate, including country					
FOREIGN_ASSOCIATE_BIRTH_DATE	FOR ASSOC B	D	N	FOREIGN	W
SC: Foreign associate's birth date					
FOREIGN_ASSOCIATE_BIRTH_PLACE	FOR ASSOC B	C,25	N	FOREIGN	W
SC: Birth place of foreign associate					
FOREIGN_ASSOCIATE_CITIZENSHIP	FOR ASSOC C	C,25	N	FOREIGN	W
SC: Current citizenship of foreign associate					
FOREIGN_ASSOCIATE_NAME	FOR ASSOC N	C,25	Y	FOREIGN	W
SC: Full name of foreign associate					
FOREIGN_ASSOCIATE_RELATIONSHIP	FOREIGN ASS	C,20	N	FOREIGN	W

SC: Relationship of foreign country associate to member

FOREIGN_EMPLOYMENT FOREIGN EMP L N SEC BACK W
SC: Indicates if member has been or is employed by a foreign country

FOREIGN_FINANCIAL_INTERESTS FOREIGN FIN L N SEC BACK W
SC: Indicates if member has any foreign financial interests

FOREIGN_GOVERNMENT_CONTACT FOREIGN GOV L N SEC BACK W
SC: Indicates if member has any foreign government contacts

FOREIGN_UNOFFICIAL_TRAVEL FOREIGN UNO L N SEC BACK W
SC: Indicates if member has traveled to any foreign countries unofficially

GARNISHED_WAGES GARNISHED W L N CREDIT H W
SC: Indicates if member has ever had his wages garnished for any reason

ILLEGAL_SUBSTANCE_PURCHASE/PROD ILLEGAL SUB L N SEC BACK W
SC: Indicates if member has purchased or produced, etc. illegal substances

ILLEGAL_SUBSTANCE_USE ILLEGAL SUB L N SEC BACK W
SC: Indicates if member has ever used legal substances

MENTAL_HEALTH_TREATMENT MENTAL HEAL L N SEC BACK W
SC: Indicates if the member has ever been treated for mental problems

MENTAL_PROBLEMS MENTAL PROB L N SEC BACK W
SC: Indicates if member has ever had problems related to mental health

NUMBER_OF_ROOMMATES NUM OF ROOM C,2 N RESIDENC W
SC: Indicates number of roommates at residence

ORGANIZATION_CITY ORG CITY C,25 N ORGANIZA W
SC: City of organization to which member belongs

ORGANIZATION_FROM_DATE ORG FROM DA D Y ORGANIZA W
SC: Date member joined the organization

ORGANIZATION_NAME ORG NAME C,30 Y ORGANIZA W
SC: Name of organization to which member belongs

ORGANIZATION_STATE ORG STATE C,2 N ORGANIZA W
SC: State code of organization to which member belongs

ORGANIZATION_STREET_ADDRESS ORG STREET C,25 N ORGANIZA W
SC: Street address of organization to which member belongs

ORGANIZATION_TO_DATE ORG TO DATE D N ORGANIZA W
SC: Date member left the organization

ORGANIZATION_TYPE ORG TYPE C,15 N ORGANIZA W
SC: Type of organization to which the member belongs

OTHER_NAMES_USED OTHER NAME C,25 N SEC BACK W
SC: Other name previously used by member

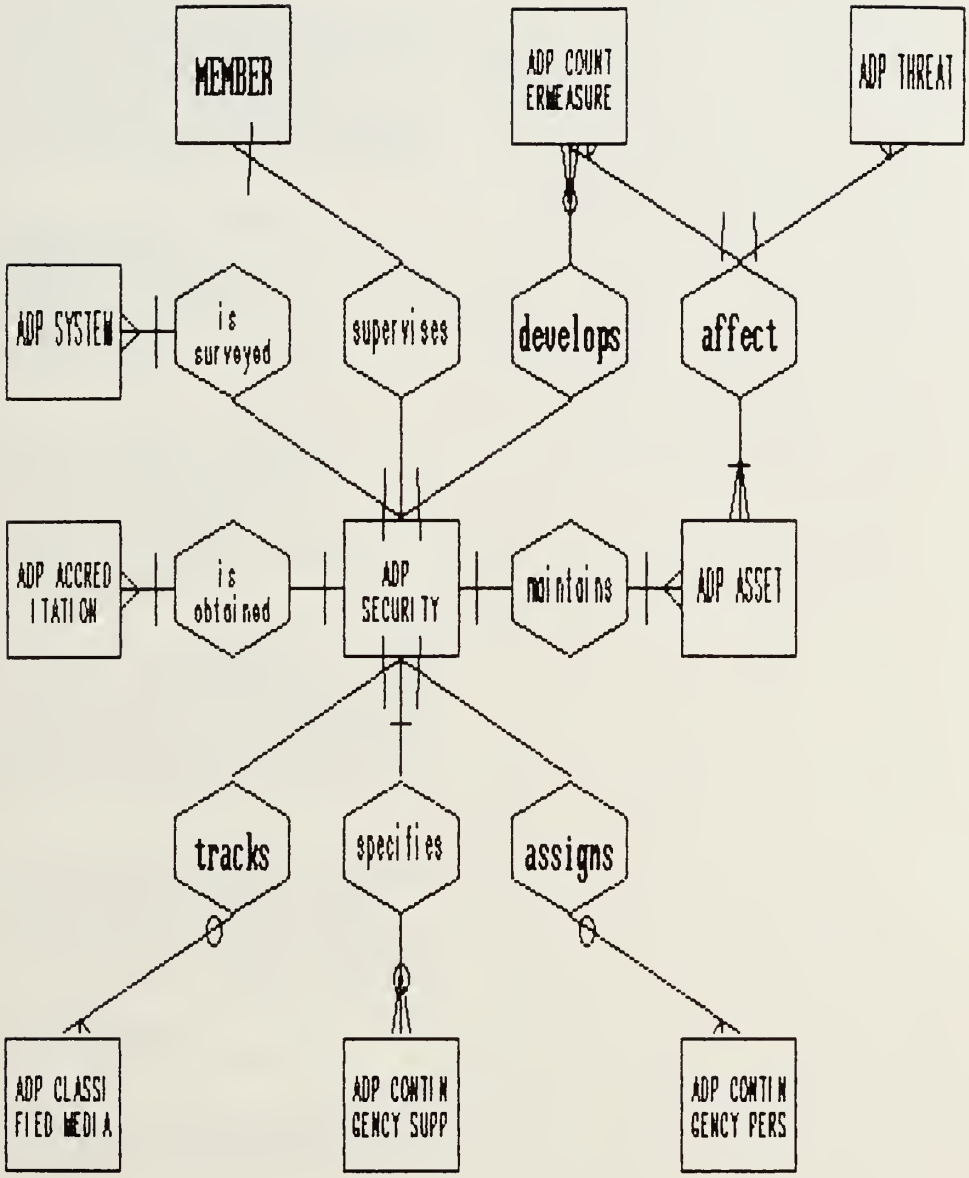
PRESCRIPTION_DRUG_MISUSE	PRESCRIP DR	L	N	SEC BACK	W
SC: Indicates if member has ever misused prescription drugs					
REFERENCE_ASSOCIATION	REF ASSOC	C,25	N	CHARACTE	W
SC: Association member had with character reference (e.g. best friend)					
REFERENCE_ASSOCIATION_FROM_DATE	REF ASSOC F	D	N	CHARACTE	W
SC: Beginning date member knew the character reference					
REFERENCE_ASSOCIATION_TO_DATE	REF ASSOC T	D	N	CHARACTE	W
SC: Date member lost contact with the character reference					
REFERENCE_CITY	REF CITY	C,25	N	CHARACTE	W
SC: City in which character reference currently resides					
REFERENCE_HOME_PHONE	REF HOME PH	C,12	N	CHARACTE	W
SC: Current home phone number of character reference					
REFERENCE_NAME	REF NAME	C,45	Y	CHARACTE	W
SC: Full name of character reference					
REFERENCE_OFFICE_PHONE	REF OFF PHO	C,12	N	CHARACTE	W
SC: Current office phone number of character reference (if known)					
REFERENCE_STATE	REF STATE	C,2	N	CHARACTE	W
SC: State code in which character currently resides					
REFERENCE_STREET_ADDRESS	REF STREET	C,25	N	CHARACTE	W
SC: Current street address of character reference					
REPOSSESSIONS	REPOSSESSIO	L	N	CREDIT H	W
SC: Indicates if member has ever had anything repossessed					
RESIDENCE_CITY	RES CITY	C,25	N	RESIDENC	W
SC: Residence city					
RESIDENCE_COUNTRY	RES COUNTRY	C,20	N	RESIDENC	W
SC: Country of residence					
RESIDENCE_FROM_DATE	RES FROM DA	D	Y	RESIDENC	W
SC: Date member started residing in residence					
RESIDENCE_STATE	RES STATE	C,2	N	RESIDENC	W
SC: State code of residence					
RESIDENCE_STREET_ADDRESS	RES STREET	C,25	N	RESIDENC	W
SC: Street address of residence					
RESIDENCE_TO_DATE	RES TO DATE	D	Y	RESIDENC	W
SC: Date member ended residence at this place					
ROOMMATE_CURRENT_CITY	ROOMMATE CI	C,25	N	RESIDENC	W
SC: Roommate's current city					
ROOMMATE_CURRENT_PHONE	ROOMMATE PH	C,12	N	RESIDENC	W
SC: Current phone number of roommate					

ROOMMATE_CURRENT_STATE	ROOMMATE ST	C,2	N	RESIDENC	W
SC: Current state where roommate lives					
ROOMMATE_CURRENT_STREET_ADDRESS	ROOMMATE ST	C,25	N	RESIDENC	W
SC: Current street address of roommate					
ROOMMATE_NAME	ROOMMATE	C,25	N	RESIDENC	W
SC: Name of roommate at this residence (other than spouse or dependents)					
SECURITY_BACKGROUND_REMARKS	SEC RMKS	C,100	N	SEC BACK	W
SC: Any remarks regarding the member's security background					
TAX_PURPOSE_LIEN	TAX LEIN	L	N	CREDIT H	W
SC: Indicates if member has ever had a lien on property for unpaid taxes					
UNPAID_JUDGEMENTS	UNPAID JUDG	L	N	CREDIT H	W
SC: Indicates if member has any unpaid judgements					

APPENDIX J

ADP ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the AUTOMATED DATA PROCESSING sub-function as discussed in Chapter IV.


MEMBER
ADP COUNTERMEASURE
ADP THREAT
ADP SYSTEM
is surveyed
supervises
develops
affect
ADP ACCREDITATION
is obtained
ADP SECURITY
maintains
ADP ASSET
tracks
specifies
assigns
ADP CLASSIFIED MEDIA
ADP CONTIN GENCY SUPP
ADP CONTIN GENCY PERS

STRUCTURE REPORT FOR ADP - VERSION 2.11

```
ADP ACCREDITATION =
      ADP_ACCREDITATION_DATE
    + ADP_ACCREDITATION_AUTHORIZATION
    + ADP_ACCREDITATION_EXPIRATION
    + ADP_ACCREDITATION_STATUS
    + ADP_ACCREDITED_PROCESSING_LEVEL
    + ADP_ACCREDITED_PROCESSING_MODE

ADP ASSET =
      ADP_ASSET_SERIAL_NUMBER
    + ADP_ASSET_TYPE
    + ADP_ASSET_DESCRIPTION
    + ADP_ASSET_LOCATION
    + ADP_ASSET_NAME
    + ADP_ASSET_PRICE
    + ADP_ASSET_USERS

ADP CLASSIFIED MEDIA =
      ADP_MEDIA_SERIAL_NUMBER
    + ADP_MEDIA_CLASSIFICATION
    + ADP_MEDIA_DIRECTORY
    + ADP_MEDIA_LAST_UPDATED_DATE
    + ADP_MEDIA_LOCATION
    + ADP_MEDIA_TYPE

ADP CONTINGENCY PERSONNEL =
      ADP_CONTINGENCY_PERSONNEL_NAME
    + ADP_CONTINGENCY_PERSONNEL_TEAM
    + ADP_CONT_PERSONNEL_HOME_PHONE
    + ADP_CONT_PERSONNEL_OFFICE_PHONE
    + ADP_CONT_PERSONNEL_POSITION

ADP CONTINGENCY SUPPLY ITEM =
      ADP_CONTINGENCY_SUPPLY_STOCK_NUM
    + ADP_CONTINGENCY_SUPPLY_NAME
    + ADP_CONTINGENCY_SUPPLY_PHONE
    + ADP_CONTINGENCY_SUPPLY_QUANTITY
    + ADP_CONTINGENCY_SUPPLY_SOURCE

ADP COUNTERMEASURE =
      ADP_COUNTERMEASURE_NAME

ADP SECURITY =
      ADP_SECURITY_OFFICER_APPOINTED
    + ADP_SECURITY_OFFICER_NAME

ADP SYSTEM =
      ADP_SYSTEM_ID
    + ADP_SYSTEM_CONTINGENCY_DATE
    + ADP_SYSTEM_CONTINGENCY_STATUS
    + ADP_SYSTEM_DATA_COST
    + ADP_SYSTEM_DATA_PROCESSING_TIME
    + ADP_SYSTEM_DATA_SECURITY_MODE
```

```
   + ADP_SYSTEM_DATA_TYPE_PROCESSED
   + ADP_SYSTEM_DESCRIPTION
   + ADP_SYSTEM_EQUIPMENT_COST
   + ADP_SYSTEM_LOCATION
   + ADP_SYSTEM_OPS_CONTACT_LOCATION
   + ADP_SYSTEM_OPS_CONTACT_NAME
   + ADP_SYSTEM_OPS_CONTACT_OFF_CODE
   + ADP_SYSTEM_OPS_CONTACT_PHONE
   + ADP_SYSTEM_PRIMARY_FUNCTION
   + ADP_SYSTEM_SCOPE_TYPE
   + ADP_SYSTEM_SOFTWARE
   + ADP_SYSTEM_SOFTWARE_COST
   + ADP_SYSTEM_TYPE

ADP_THREAT =
     THREAT_NAME
   + THREAT_RISK

MEMBER =
     ADP_SUPERVISOR_NAME
   + ADP_SUPERVISOR_LOCATION
   + ADP_SUPERVISOR_PHONE

affect =
     ASSESSED_RISK_LEVEL
```

ATTRIBUTE REPORT FOR ADP - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
ADP_ACCREDITATION_AUTHORIZATION	ADP ACCREDI	C,30	N	ADP ACCR E
SC: Name of person granting interim authority to process information				
ADP_ACCREDITATION_DATE	ADP ACCREDI	D	Y	ADP ACCR E
SC: Date of accreditation or interim authority to operate				
ADP_ACCREDITATION_EXPIRATION	ADP ACCREDI	D	N	ADP ACCR E
SC: Expiration date of interim authority to operate prior to accreditation				
ADP_ACCREDITATION_STATUS	ADP ACCREDI	C,1	N	ADP ACCR E
SC: Status of ADP accreditation (I=Interim, F=Final)				
ADP_ACCREDITED_PROCESSING_LEVEL	ADP ACCREDI	C,8	N	ADP ACCR E
SC: Level(s) of data command has been accredited to process (I, II, & III)				
ADP_ACCREDITED_PROCESSING_MODE	ADP ACCREDI	C,20	N	ADP ACCR E
SC: Security mode command has been accredited to process (e.g. dedicated)				
ADP_ASSET_DESCRIPTION	ADP ASSET D	C,30	N	ADP ASSE E
SC: Description of ADP asset				
ADP_ASSET_LOCATION	ADP ASSET L	C,30	N	ADP ASSE E
SC: Location where ADP asset is kept				
ADP_ASSET_NAME	ADP ASSET N	C,25	N	ADP ASSE E
SC: Name of ADP asset				
ADP_ASSET_PRICE	ADP ASSET P	$	N	ADP ASSE E
SC: Purchase price of ADP asset				
ADP_ASSET_SERIAL_NUMBER	ADP ASSET S	C,20	Y	ADP ASSE E
SC: Serial number of ADP asset				
ADP_ASSET_TYPE	ADP ASSET T	C,2	Y	ADP ASSE E
SC: Indicates what type asset it is, either hardware (HW) or software (SW)				
ADP_ASSET_USERS	ADP ASSET U	C,100	N	ADP ASSE E
SC: List of active users of the ADP asset				
ADP_CONTINGENCY_PERSONNEL_NAME	ADP CONT PE	C,30	Y	ADP PERS E
SC: Name of person on emergency contingency personnel control list				
ADP_CONTINGENCY_PERSONNEL_TEAM	ADP CONT PE	C,15	N	ADP PERS E
SC: Team person is on for contingency actions				
ADP_CONTINGENCY_SUPPLY_NAME	ADP CONT SU	C,30	N	ADP CONT E
SC: Name of contingency supply item				
ADP_CONTINGENCY_SUPPLY_PHONE	ADP CONT SU	C,8	N	ADP CONT E
SC: Phone number of source for contingency supply item				

ADP_CONTINGENCY_SUPPLY_QUANTITY ADP CONT SU N,4 N ADP CONT E
SC: Quantity required of contingency supply item

ADP_CONTINGENCY_SUPPLY_SOURCE ADP CONT SU C,30 N ADP CONT E
SC: Source of contingency supply item

ADP_CONTINGENCY_SUPPLY_STOCK_NUM ADP CONT SU C,20 Y ADP CONT E
SC: Stock number of the contingency supply item

ADP_CONT_PERSONNEL_HOME_PHONE ADP CONT PE C,8 N ADP PERS E
SC: Home phone number of person on ADP contingency operations team

ADP_CONT_PERSONNEL_OFFICE_PHONE ADP CONT PE C,8 N ADP PERS E
SC: Office phone number of person on ADP contingency operations team

ADP_CONT_PERSONNEL_POSITION ADP CONT PE C,15 N ADP PERS E
SC: Position person holds on contingency operation team

ADP_COUNTERMEASURE_NAME ADP COUNTER C,60 Y ADP COUN E
SC: Name of countermeasure for ADP threats and assets

ADP_MEDIA_CLASSIFICATION ADP MEDIA C C,15 N ADP CLAS E
SC: Classification level of ADP media (e.g. confidential, secret)

ADP_MEDIA_DIRECTORY ADP MEDIA D C,200 N ADP CLAS E
SC: Names of files in the directory of the classified media

ADP_MEDIA_LAST_UPDATED_DATE ADP MEDIA L D N ADP CLAS E
SC: Date information on classified media was updated

ADP_MEDIA_LOCATION ADP MEDIA L C,30 N ADP CLAS E
SC: Location of classified ADP media

ADP_MEDIA_SERIAL_NUMBER ADP MEDIA S C,15 Y ADP CLAS E
SC: Serial number assigned to media by ADP security officer

ADP_MEDIA_TYPE ADP MEDIA T C,15 N ADP CLAS E
SC: Type of ADP media (e.g. floppy disk, magnetic tape)

ADP_SECURITY_OFFICER_APPOINTED ADP SEC OFF L N ADP SECU E
SC: Indicates ADP Security Officer has been appointed in writing

ADP_SECURITY_OFFICER_NAME ADP SEC OFF C,30 N ADP SECU E
SC: Name of ADP Security Officer

ADP_SUPERVISOR_LOCATION ADPSUPVRLOC C,25 N MEMBER E
SC: THE ADP SUPERVISOR'S OFFICE LOCATION

ADP_SUPERVISOR_NAME ADPSUPVRNAM C,50 Y MEMBER E
SC: THE NAME AND RANK OF THE MEMBER ASSIGNED TO SUPEVISE ADP SECURITY

ADP_SUPERVISOR_PHONE ADPSUPVRPHO N,5 N MEMBER E
SC: THE ADP SECURITY SUPERVISOR'S OFFICE PHONE NUMBER

ADP_SYSTEM_CONTINGENCY_DATE ADP SYSTEM D N ADP SYST E
SC: Date of contingency plan in existence or expected date of completion

ADP_SYSTEM_CONTINGENCY_STATUS ADP SYSTEM C,1 N ADP SYST E
SC: Status code of contingency plan for ADP system

Long Comment :
The following codes are valid for contingency plan status:

E = in existence
D = being developed
N = not required

ADP_SYSTEM_DATA_COST ADP SYSTEM $ N ADP SYST E
SC: Total estimated cost of data kept on ADP system

ADP_SYSTEM_DATA_PROCESSING_TIME ADP SYSTEM N,5,2 N ADP SYST E
SC: Percent of processing time for this data type(in repeating group of 3)

ADP_SYSTEM_DATA_SECURITY_MODE ADP SYSTEM C,20 N ADP SYST E
SC: Security mode of operation for this data type(in repeating group of 3)

Long Comment :
The following are valid security modes of operation:

COMPARTMENTED
CONTROLLED
DEDICATED
SYSTEM HIGH
LIMITED ACCESS
MULTILEVEL

ADP_SYSTEM_DATA_TYPE_PROCESSED ADP SYSTEM C,25 N ADP SYST E
SC: Type of data processed on system (key in repeating group of three)

Long Comment :
The following types are valid for data types:

SCI
SIOP-ESCI
TOP SECRET
SECRET
CONFIDENTIAL
PRIVACY ACT
FOR OFFICIAL USE ONLY
FINANCIAL
SENSITIVE MANAGEMENT
PROPRIETARY
PRIVILEGED
LEVEL III (all others)

ADP_SYSTEM_DESCRIPTION ADP SYSTEM C,200 N ADP SYST E
SC: List of components, peripherals, devices, etc, of ADP system

ADP_SYSTEM_EQUIPMENT_COST ADP SYSTEM $ N ADP SYST E

SC: Total cost of equipment for this ADP system

ADP_SYSTEM_ID	ADP SYSTEM	C,30	Y	ADP SYST	E
SC: Identifying name of ADP system being surveyed					
ADP_SYSTEM_LOCATION	ADP SYSTEM	C,25	N	ADP SYST	E
SC: Location where ADP system is kept					
ADP_SYSTEM_OPS_CONTACT_LOCATION	ADP SYSTEM	C,25	N	ADP SYST	E
SC: Location of ADP system operations point of contact					
ADP_SYSTEM_OPS_CONTACT_NAME	ADP SYSTEM	C,25	N	ADP SYST	E
SC: Name of system operations point of contact					
ADP_SYSTEM_OPS_CONTACT_OFF_CODE	ADP SYSTEM	C,5	N	ADP SYST	E
SC: Office code of ADP system operations point of contact					
ADP_SYSTEM_OPS_CONTACT_PHONE	ADP SYSTEM	C,8	N	ADP SYST	E
SC: Phone number of ADP system operations point of contact					
ADP_SYSTEM_PRIMARY_FUNCTION	ADP SYSTEM	C,25	N	ADP SYST	E
SC: Primary function of ADP system, e.g. wordprocessing					
ADP_SYSTEM_SCOPE_TYPE	ADP SYSTEM	C,1	N	ADP SYST	E
SC: Code indicating what the scope of the system is					

Long Comment :
The following codes apply for the scope types:

A = Stand-alone and single controlled area
B = Shared logic (workstations) and single controlled area
C = Shared logic and more than one controlled area
D = Multiple processors and single controlled area
E = Multiple processors and more than one controlled area
F = Used with a remote computer
G = other

ADP_SYSTEM_SOFTWARE	ADP SYSTEM	C,100	N	ADP SYST	E
SC: List of all system software including operating system					
ADP_SYSTEM_SOFTWARE_COST	ADP SYSTEM	$	N	ADP SYST	E
SC: Total cost of all software used by system					
ADP_SYSTEM_TYPE	ADP SYSTEM	C,7	N	ADP SYST	E
SC: Type of ADP system (ADP, OIS, or Network)					
ASSESSED_RISK_LEVEL	ASSESSED RI	C,1	N	affect	R
SC: Level of risk to an asset with threat and countermeasure affecting it					

Long Comment :
Levels are: H=high, M=Moderate, L=Low

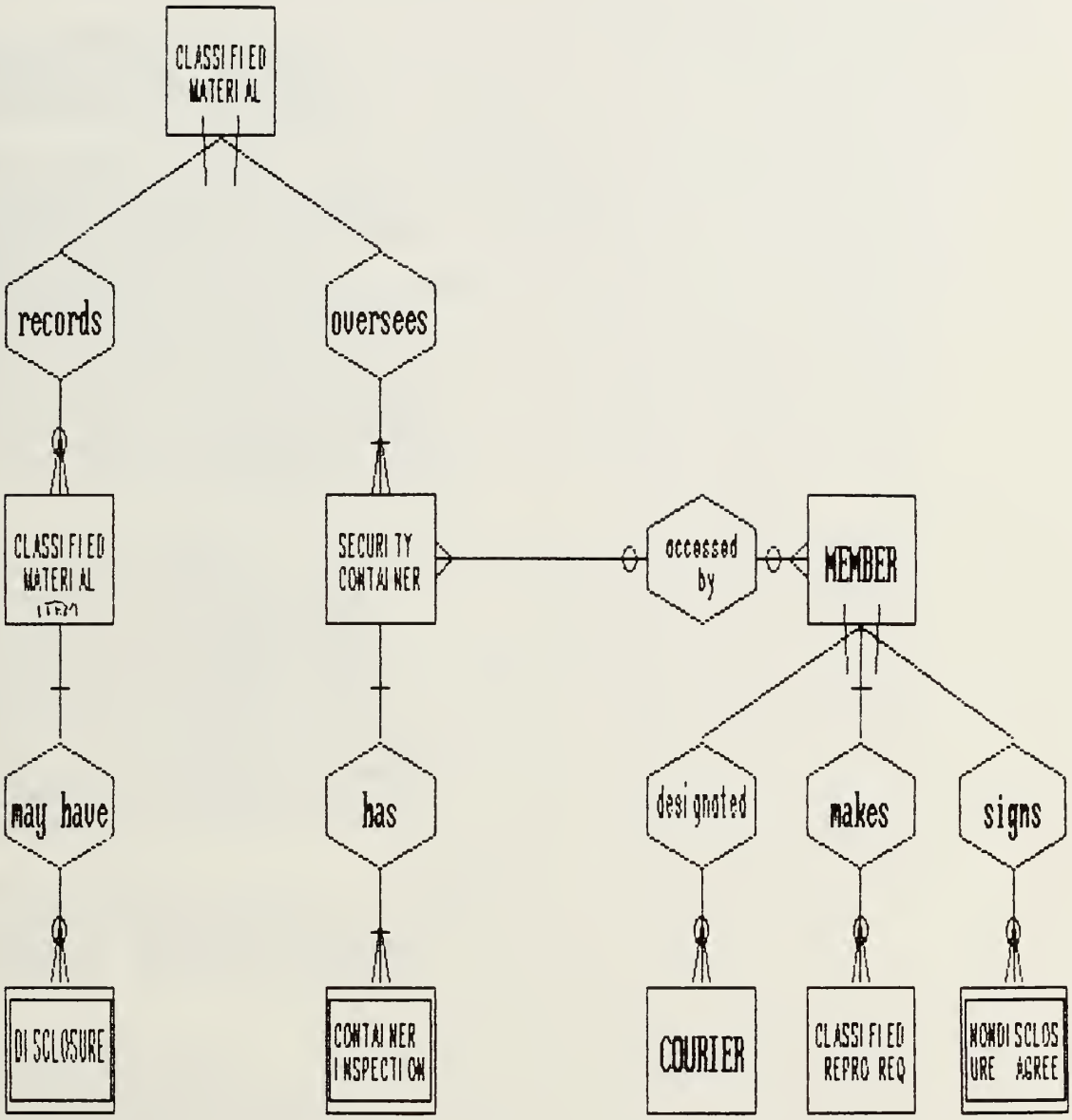
THREAT_NAME	THREAT NAME	C,45	Y	ADP THRE	E
SC: Name of threat					

THREAT_RISK THREAT RISK C,1 N ADP THRE E
SC: Assessment of this threat risk (H=high, M=Moderate, L=Low)

APPENDIX K

CLASSIFIED MATERIAL ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the CLASSIFIED MATERIAL sub-function as discussed in Chapter IV.


CLASSIFIED MATERIAL
records
oversees
CLASSIFIED MATERIAL
SECURITY CONTAINER
accessed by
MEMBER
may have
has
designated
makes
signs
DISCLOSURE
CONTAINER INSPECTION
COURIER
CLASSIFIED REPRO REQ
NONDISCLOSURE AGREE

STRUCTURE REPORT FOR CLASSMAT - VERSION 2.11

```
CLASSIFIED MATERIAL =
     CLASSMAT_SUPERVISOR_NAME
   + CLASSMAT_SUPERVISOR_LOCATION
   + CLASSMAT_SUPERVISOR_PHONE

CLASSIFIED MATERIAL ITEM =
     CLASS_MATERIAL_SERIAL_NUMBER
   + CLASSIFIED_MATERIAL_ADDRESSEE
   + CLASSIFIED_MATERIAL_COPY_NUMBER
   + CLASSIFIED_MATERIAL_DATE
   + CLASSIFIED_MATERIAL_RECEIPT_DATE
   + CLASSIFIED_MATERIAL_RECIPIENT
   + CLASS_MATERIAL_DESCRIPTION
   + CLASS_MATERIAL_DESTRUCTION_DATE
   + CLASS_MATERIAL_DESTRUCT_MEMBER
   + CLASS_MATERIAL_DESTRUCT_WITNESS
   + CLASS_MATERIAL_NUMBER_ENCLOSURES
   + CLASS_MATERIAL_ORIGINATOR_CODE
   + CLASS_MATERIAL_REGISTERED_NUMBER

CLASSIFIED REPRO REQUEST =
     REPRODUCTION_REQUESTOR_DATE
   + REPRODUCTION_REQUESTOR_NAME
   + REPRODUCTION_AUTHORITY_DATE
   + REPRODUCTION_AUTHORITY_NAME
   + REPRODUCTION_AUTHORITY_TITLE
   + REPRODUCTION_MATERIAL_PAGES
   + REPRODUCTION_MATERIAL_REASON
   + REPRODUCTION_REQUESTED_MATERIAL
   + REPRODUCTION_REQUESTOR_COMMAND
   + REPRODUCTION_REQUESTOR_TITLE
   + REPRODUCTION_REQUEST_APPROVAL

CONTAINER INSPECTION =
     CONTAINER_INSPECTION/REPAIR_DATE
   + CONTAINER_INSPECTED_BY
   + CONTAINER_INSPECTION_COMMENTS
   + CONTAINER_INSPECTION_CONDITION

COURIER =
     COURIER_START_DATE
   + COURIER_END_DATE
   + COURIER_ITEM_DESCRIPTION
   + COURIER_ITEM_QUANTITY
   + COURIER_ITEM_SIZE
   + COURIER_OTHER_DESCRIPTION
   + COURIER_SECURITY_MANAGER
   + COURIER_SIGNATURE_DATE

DISCLOSURE =
     DISCLOSURE_DATE
   + DISCLOSURE_MEMBER_NAME
   + DISCLOSURE_ACTIVITY
```

```
MEMBER =
     CLASSMAT_MEMBER_SSN
   + CLASSMAT_MEMBER_DEPARTMENT
   + CLASSMAT_MEMBER_NAME

NONDISCLOSURE  AGREEMENT =
     NONDISCLOSURE_ACCEPTANCE_COMMAND
   + NONDISCLOSURE_ACCEPTANCE_DATE
   + NONDISCLOSURE_ACCEPTANCE_NAME
   + NONDISCLOSURE_ACCEPTANCE_SIGN
   + NONDISCLOSURE_DEBRIEF_WITNESS
   + NONDISCLOSURE_MEMBER_COMMAND
   + NONDISCLOSURE_MEMBER_SIGNATURE
   + NONDISCLOSURE_SECURITY_DEBRIEF
   + NONDISCLOSURE_SEC_DEBRIEF_DATE
   + NONDISCLOSURE_WITNESS_COMMAND
   + NONDISCLOSURE_WITNESS_DATE
   + NONDISCLOSURE_WITNESS_NAME
   + NONDISCLOSURE_WITNESS_SIGNATURE
   + NONDISC_SEC_DEBRIEF_WITNESS_SIGN

SECURITY CONTAINER =
     SECURITY_CONTAINER_NUMBER
   + SECURITY_CONTAINER_BUILDING
   + SECURITY_CONTAINER_CLASS
   + SECURITY_CONTAINER_COMMAND
   + SECURITY_CONTAINER_CONDITION
   + SECURITY_CONTAINER_DATE_RECEIVED
   + SECURITY_CONTAINER_DESCRIPTION
   + SECURITY_CONTAINER_LOCATION
   + SECURITY_CONTAINER_LOCK_MODEL
   + SECURITY_CONTAINER_OFFICE_CODE
   + SECURITY_CONTAINER_REMARKS
   + SECURITY_CONTAINER_SERIAL_NUMBER
   + SECURITY_CONTAINER_STOCK_NUMBER
   + SEC_CONTAINER_COMBINATION_DATE
   + SEC_CONTAINER_COMBINATION_MEMBER
   + SEC_CONTAINER_DOCUMENT_QUANTITY
   + SEC_CONTAINER_HASP_SERIAL_NUMBER
   + SEC_CONTAINER_LOCK_SERIAL_NUMBER
   + SEC_CONTAINER_MANUFACTURE_DATE
   + SEC_CONTAINER_MATERIAL_CLASS
   + SEC_CONTAINER_PERCENT_CONFIDENT
   + SEC_CONTAINER_PERCENT_SECRET
   + SEC_CONTAINER_PERCENT_TOP_SECRET
   + SEC_CONTAINER_PERCENT_UNCLASS
   + SEC_CONTAINER_SECURITY_POINTS
```

ATTRIBUTE REPORT FOR CLASSMAT - VERSION 2.11

Attribute Name	Alias	Format	Key	Object & Type
CLASSIFIED_MATERIAL_ADDRESSEE	CLASS MAT A	C,50	N	CLASSMAT E
SC: Name of activity receiving the classified material				
CLASSIFIED_MATERIAL_COPY_NUMBER	CLASS MAT C	N,3	N	CLASSMAT E
SC: Copy number of classified material				
CLASSIFIED_MATERIAL_DATE	CLASS MAT D	D	N	CLASSMAT E
SC: Date of classified material				
CLASSIFIED_MATERIAL_RECEIPT_DATE	CLASS MAT R	D	N	CLASSMAT E
SC: Date classified material was received by addressee				
CLASSIFIED_MATERIAL_RECIPIENT	CLASS MAT R	C,30	N	CLASSMAT E
SC: Name of authorized recipient of classified material				
CLASSMAT_MEMBER_DEPARTMENT	CLASSMATMBR	C,25	N	MEMBER E
SC: THE DEPARTMENT TO WHICH A SPECIFIC MEMBER IS ASSIGNED				
CLASSMAT_MEMBER_NAME	CLASSMATMBR	C,45	N	MEMBER E
SC: THE MEMBER'S FIRST,LAST NAME AND MIDDLE INITIAL				
CLASSMAT_MEMBER_SSN	CLASSMATMBR	N,12	Y	MEMBER E
SC: THE CLASSIFIED MATERIAL PROGRAM MEMBER'S SOCIAL SECURITY NUMBER				
CLASSMAT_SUPERVISOR_LOCATION	CLASSMATSUP	C,25	N	CLASS MT E
SC: LOCATION OF THE CLASSIFIED MATERIAL PROGRAM SUPERVISOR'S OFFICE				
CLASSMAT_SUPERVISOR_NAME	CLASSMATSUP	C,50	Y	CLASS MT E
SC: NAME AND RANK OFTHE CLASSIFIED MATERIAL PROGRAM SUPERVISOR				
CLASSMAT_SUPERVISOR_PHONE	CLASSMATSUP	N,5	N	CLASS MT E
SC: THE CLASSIFIED MATERIAL PROGRAM SUPERVISOR'S OFFICE PHONE NUMBER				
CLASS_MATERIAL_DESCRIPTION	CLASS MAT D	C,60	N	CLASSMAT E
SC: Unclassified description of classified material				
CLASS_MATERIAL_DESTRUCTION_DATE	CLASS MAT D	D	N	CLASSMAT E
SC: Date classified material was destroyed				
CLASS_MATERIAL_DESTRUCT_MEMBER	CLASS MATER	C,30	N	CLASSMAT E
SC: Name of member destroying classified material				
CLASS_MATERIAL_DESTRUCT_WITNESS	CLASS MAT D	C,30	N	CLASSMAT E
SC: Name of member witnessing destruction of classified material				
CLASS_MATERIAL_NUMBER_ENCLOSURES	CLASS MAT N	N,3	N	CLASSMAT E
SC: Number of enclosures in classified material				
CLASS_MATERIAL_ORIGINATOR_CODE	CLASS MAT O	C,7	N	CLASSMAT E
SC: code or UIC of originator of classified material				

CLASS_MATERIAL_REGISTERED_NUMBER CLASS MAT R C,15 N CLASSMAT E
SC: Registered number of classified material (if any)

CLASS_MATERIAL_SERIAL_NUMBER CLASS MAT S C,6 Y CLASSMAT E
SC: Serial or file number of classified material

CONTAINER_INSPECTED_BY CONT INSPEC C,3 N CONTAINE W
SC: Initials of person who inspected/repaired container

CONTAINER_INSPECTION/REPAIR_DATE CONT INSPEC D Y CONTAINE W
SC: Date container was inspected or repaired

CONTAINER_INSPECTION_COMMENTS CONT INSPEC C,45 N CONTAINE W
SC: Comments on inspection or repairs made to container

CONTAINER_INSPECTION_CONDITION CONT INSPEC C,15 N CONTAINE W
SC: Condition of container after inspection or repair

COURIER_END_DATE COURIER END D N COURIER E
SC: Ending date for member's eligibility to be a courier

COURIER_ITEM_DESCRIPTION COURIER ITE C,45 N COURIER E
SC: Description of item member is authorized to carry (in repeating group)

COURIER_ITEM_QUANTITY COURIER ITE N,3 N COURIER E
SC: Quantity of items member is authorized to carry (in repeating group)

COURIER_ITEM_SIZE COURIER ITE C,40 N COURIER E
SC: Approximate size of item(s) (part of repeating group)

COURIER_OTHER_DESCRIPTION COURIER OTH C,45 N COURIER E
SC: Description of other items member is authorized to carry

COURIER_SECURITY_MANAGER COURIER SEC C,30 N COURIER E
SC: Name of security manager authorizing this courier

COURIER_SIGNATURE_DATE COURIER SIG D N COURIER E
SC: Date courier letter was signed

COURIER_START_DATE COURIER STA D Y COURIER E
SC: Starting date for member to be a courier

DISCLOSURE_ACTIVITY DISC ACTIVI C,30 N DISCLOSU W
SC: Name of activity to which person accessing material belongs

DISCLOSURE_DATE DISC DATE D Y DISCLOSU W
SC: Date top secret (only) information is disclosed (N/A for all others)

DISCLOSURE_MEMBER_NAME DISC MBR NA C,30 Y DISCLOSU W
SC: Name of member to which material is disclosed (top secret only)

NONDISCLOSURE_ACCEPTANCE_COMMAND NONDISC ACC C,30 N NONDISCL W
SC: Command to which member accepting this agreement for the gov't belongs

NONDISCLOSURE_ACCEPTANCE_DATE NONDISC ACC D N NONDISCL W
SC: Date member accepting this agreement for the government signed it

NONDISCLOSURE_ACCEPTANCE_NAME NONDISC ACC C,30 N NONDISCL W
SC: Name of person accepting this agreement for the government

NONDISCLOSURE_ACCEPTANCE_SIGN NONDISC ACC L N NONDISCL W
SC: Indicates if member accepting this agreement has signed it

NONDISCLOSURE_DEBRIEF_WITNESS NONDISC SEC C,30 N NONDISCL W
SC: Name of witness witnessing security debrief

NONDISCLOSURE_MEMBER_COMMAND NONDISC MBR C,30 N NONDISCL W
SC: Command to which member belongs when signing this disclosure

NONDISCLOSURE_MEMBER_SIGNATURE NONDISC MBR L N NONDISCL W
SC: Indicates if member has signed this agreement

NONDISCLOSURE_SECURITY_DEBRIEF NONDISC SEC L N NONDISCL W
SC: Indicates if member has been properly debriefed on security matters

NONDISCLOSURE_SEC_DEBRIEF_DATE NONDISC SEC D N NONDISCL W
SC: Date of member's security debrief date

NONDISCLOSURE_WITNESS_COMMAND NONDISC WIT C,30 N NONDISCL W
SC: Command to which witness of this agreement belongs

NONDISCLOSURE_WITNESS_DATE NONDISC WIT D N NONDISCL W
SC: Date witness signed this agreement

NONDISCLOSURE_WITNESS_NAME NONDISC WIT C,30 N NONDISCL W
SC: Name of witness for this agreement

NONDISCLOSURE_WITNESS_SIGNATURE NONDISC WIT L N NONDISCL W
SC: Indicates if witness has signed this agreement

NONDISC_SEC_DEBRIEF_WITNESS_SIGN NONDISC SEC L N NONDISCL W
SC: Indicates if witness has signed security debrief sheet

REPROD'JCTION_AUTHORITY_DATE REPRO AUTH D N CLASSIFI E
SC: Date reproduction request was authorized/denied

REPRODUCTION_AUTHORITY_NAME REPRO AUTH C,30 N CLASSIFI E
SC: Name of person authorizing reproduction of classified material

REPRODUCTION_AUTHORITY_TITLE REPRO AUTH C,20 N CLASSIFI E
SC: Title of person authorizing reproduction of classified material

REPRODUCTION_MATERIAL_PAGES REPRO MAT P N,3 N CLASSIFI E
SC: Number of pages in requested material for reproduction

REPRODUCTION_MATERIAL_REASON REPRO MAT R C,60 N CLASSIFI E
SC: Reason/justification for request of classified material reproduction

REPRODUCTION_REQUESTED_MATERIAL REPRO REQ M C,45 N CLASSIFI E
SC: Title of requested material for reproduction

REPRODUCTION_REQUESTOR_COMMAND REPRO REQUE C,30 N CLASSIFI E

SC: Command name of person requesting reproduction of classified material

REPRODUCTION_REQUESTOR_DATE REPRO REQ D D Y CLASSIFI E
SC: Date of request of reproduction of classified material

REPRODUCTION_REQUESTOR_NAME REPRO REQUE C,30 Y CLASSIFI E
SC: Name of person requesting classified material to be reproduced

REPRODUCTION_REQUESTOR_TITLE REPRO REQUE C,10 N CLASSIFI E
SC: Title of person requesting reproduction of classified material

REPRODUCTION_REQUEST_APPROVAL REPRO REQ A L N CLASSIFI E
SC: Indicates if reproduction of classified material was approved

SECURITY_CONTAINER_BUILDING SEC CONT BL C,15 N SEC CONT E
SC: Name or number of building in which security container is located

SECURITY_CONTAINER_CLASS SEC CONT CL C,1 N SEC CONT E
SC: Class of security container (6 classes)

SECURITY_CONTAINER_COMMAND SEC CONT CO C,30 N SEC CONT E
SC: Name of command to which security container belongs

SECURITY_CONTAINER_CONDITION SEC CONT CO C,45 N SEC CONT E
SC: Physical condition of security container

SECURITY_CONTAINER_DATE_RECEIVED SEC CONT DA D N SEC CONT E
SC: Date security container was received at command

SECURITY_CONTAINER_DESCRIPTION SEC CONT DE C,25 N SEC CONT E
SC: Description of type of security container (e.g. Mosler/5 drawer legal)

SECURITY_CONTAINER_LOCATION SEC CONT LO C,30 N SEC CONT E
SC: Location (room number) of security container

SECURITY_CONTAINER_LOCK_MODEL SEC CONT LO C,30 N SEC CONT E
SC: Make and Model of lock on security container

SECURITY_CONTAINER_NUMBER SEC CONT NU C,5 Y SEC CONT E
SC: Serial number of security container given by command

SECURITY_CONTAINER_OFFICE_CODE SEC CONT OF C,5 N SEC CONT E
SC: Office code where security container is kept

SECURITY_CONTAINER_REMARKS SEC CONT RE C,100 N SEC CONT E
SC: Remarks about security container

SECURITY_CONTAINER_SERIAL_NUMBER SEC CONT SE C,6 N SEC CONT E
SC: Official serial number of security container

SECURITY_CONTAINER_STOCK_NUMBER SEC CONT ST C,15 N SEC CONT E
SC: Federal stock number of security container

SEC_CONTAINER_COMBINATION_DATE SEC CONT CO D N SEC CONT E
SC: Date security container's combination was changed

SEC_CONTAINER_COMBINATION_MEMBER SEC CONT CO C,30 N SEC CONT E
SC: Name of member who changed combination of security container

SEC_CONTAINER_DOCUMENT_QUANTITY SEC CONT DO N,4 N SEC CONT E
SC: Number of documents in security container

SEC_CONTAINER_HASP_SERIAL_NUMBER SEC CONT HA C,10 N SEC CONT E
SC: Serial number on hasp on security container

SEC_CONTAINER_LOCK_SERIAL_NUMBER SEC CONT LO C,10 N SEC CONT E
SC: Serial number on lock case on security container

SEC_CONTAINER_MANUFACTURE_DATE SEC CONT MA D N SEC CONT E
SC: Manufacture date of security container

SEC_CONTAINER_MATERIAL_CLASS SEC CONT MA C,15 N SEC CONT E
SC: Classification of material stored in security container

SEC_CONTAINER_PERCENT_CONFIDENT SEC CONT PE N,5,2 N SEC CONT E
SC: Percent of material stored in container that is confidential

SEC_CONTAINER_PERCENT_SECRET SEC CONT PE N,5,2 N SEC CONT E
SC: Percent of material stored in container that is secret

SEC_CONTAINER_PERCENT_TOP_SECRET SEC CONT PE N,5,2 N SEC CONT E
SC: Percent of material stored in container that is top secret

SEC_CONTAINER_PERCENT_UNCLASS SEC CONT PE N,5,2 N SEC CONT E
SC: Percent of material stored in container that is unclassified

SEC_CONTAINER_SECURITY_POINTS SEC CONT SE N,5 N SEC CONT E
SC: Security points for security container

APPENDIX L

DICTIONARY REPORT

This appendix contains the Dictionary Report for the consolidated data dictionary.

DICTIONARY REPORT

DIAGRAMS REPRESENTED IN THE 'DMAIN' DICTIONARY:

DAPA
SAFETY
MEDICAL
WQSB
ADP
CLEARANC
PHYSICAL
PRP
VISITOR
SECURITY
CLASSMAT

OBJECTS:

1)	ADP ACCREDITATION	ADP ACCR
2)	ADP ASSET	ADP ASSE
3)	ADP CLASSIFIED MEDIA	ADP CLAS
4)	ADP CONTINGENCY PERSONNEL	ADP PERS
5)	ADP CONTINGENCY SUPPLY ITEM	ADP CONT
6)	ADP COUNTERMEASURE	ADP COUN
7)	ADP SECURITY	ADP SECU
8)	ADP SYSTEM	ADP SYST
9)	ADP THREAT	ADP THRE
10)	ARREST	ARREST
11)	BILLET	BILLET
12)	CHARACTER REFERENCE	CHARACTE
13)	CLASSIFIED MATERIAL	CLASS MT
14)	CLASSIFIED MATERIAL ITEM	CLASSMAT
15)	CLASSIFIED REPRO REQUEST	CLASSIFI
16)	CLEARANCE/ACCESS	CLEARANC
17)	CLIENT SCREEN	SCREEN
18)	COMPARTMENT	COMPARTM
19)	CONTAINER INSPECTION	CONTAINE
20)	COURIER	COURIER
21)	CREDIT HISTORY	CREDIT H
22)	CREDIT REFERENCE	CREDIT R
23)	DAPA	DAPA
24)	DENTAL	DENTAL
25)	DEPARTMENT	DEPT
26)	DISCLOSURE	DISCLOSU
27)	ELECTRICAL SAFETY CHECKS	ELECSAFE
28)	EMPLOYMENT	EMPLOYME
29)	EQUIPMENT	EQUIP
30)	EQUIPMENT TAG OUT	TAG OUT
31)	FOREIGN ASSOCIATE	FOREIGN
32)	FOREIGN NATIONAL VISITOR	FOREIGN
33)	GAS FREE TEST	GAS FREE
34)	HAZARD/DEFICIENCY ITEM	HAZ/DEFC
35)	HAZARDOUS MATERIAL ITEM	HAZMAT
36)	HEARING CONSERVATION SURVEY	HEARING
37)	HEARING PROTECTION	HEARING
38)	HEAT EXPOSURE	HEAT EXP

39)	HEAT STRESS	HTSTRESS
40)	HEAT STRESS EQUIPMENT	HEAT STR
41)	IMMUNIZATION	IMMUNIZA
42)	INJURY	INJURY
43)	INVENTORY ITEM	INVENTOR
44)	KEYS	KEYS
45)	KEYS & LOCKS	KEYS & L
46)	LAB TESTS	LAB TEST
47)	MED LIBRARY ITEM	MED LIBR
48)	MEDICAL	MEDICAL
49)	MEDICAL CHIT	MEDCHIT
50)	MEDICAL CONSULT	MEDCONS
51)	MEDICAL SURVEILLANCE EVAL	MEDSURV
52)	MEDICINAL	MEDICINA
53)	MEMBER	MEMBER
54)	MISHAP INVESTIGATION	MISHAP
55)	MOTOR VEHICLE COURSE	MOTRVEH
56)	NONDISCLOSURE AGREEMENT	NONDISCL
57)	OFF DUTY TRAINING	OFF DUTY
58)	ORGANIZATION	ORGANIZA
59)	PERSONNEL RELIABILITY PROGRAM	PRP
60)	PEST CONTROL	PEST CON
61)	PHYSICAL EXAM	PHYSICAL
62)	PHYSICAL SECURITY	PHYSICAL
63)	PRP BILLET	PRP BILL
64)	PRP MEMBER	PRP MEMB
65)	RADIATION EXPOSURE	RADEXP
66)	RADIATION SURVEY	RADSURV
67)	REFERRAL	REFERRAL
68)	RESIDENCE	RESIDENC
69)	RESPIRATOR EQUIPMENT	RESPIRAT
70)	SAFETY	SAFETY
71)	SECURITY	SECURITY
72)	SECURITY BACKGROUND	SEC BACK
73)	SECURITY CLEARANCE	SEC CLR
74)	SECURITY CONTAINER	SEC CONT
75)	SECURITY FORCE MBR	SECFORMB
76)	SHIP ACCESS LIST	SHIP ACC
77)	SHIP BILL	SHIP BIL
78)	SICK CALL	SICKCALL
79)	SIGHT SURVEY	SITESURV
80)	SUBFUNCTION	SUBFUNCT
81)	VISION INFO	VISION
82)	VISITOR	VIS
83)	VISITOR CONTROL	VISITOR
84)	WATER SAMPLE	WATER
85)	WQSB	WQSB
86)	access	access
87)	accessed by	accessed
88)	affect	affect
89)	are summarized	summary
90)	arranged for	arranged
91)	arranges	arranges
92)	assigned	assigned
93)	assigned to	assign
94)	assigns	assigns

95)	audits	audits
96)	belong to	belong t
97)	belongs	belongs
98)	carry	carry
99)	conducted on	conduct
100)	conducts	conducts
101)	consolidates	consolid
102)	contacts	contacts
103)	contains	contains
104)	controls	controls
105)	coordinates	coord
106)	designated	designat
107)	develops	develops
108)	done by	done by
109)	executes	executes
110)	filed	filed
111)	given to	given to
112)	goes to	goes to
113)	granted	granted
114)	has	has
115)	investigates	investig
116)	is also	is also
117)	is assigned	assigned
118)	is listed	is liste
119)	is monitored	monitord
120)	is obtained	is obtai
121)	is received	received
122)	is screened	is scree
123)	is selected	is selec
124)	is surveyed	is surve
125)	is tracked	tracked
126)	issued	issued
127)	issued to	issue to
128)	keeps	keeps
129)	kept by	kept by
130)	logs	logs
131)	maintained	maintain
132)	maintained by	maintain
133)	maintained on	maintan
134)	maintains	maintain
135)	makes	makes
136)	may be	may be
137)	may have	may have
138)	monitors	monitors
139)	obtains	obtains
140)	occupies	occupies
141)	occurs to	occurs
142)	organized by	organize
143)	oversees	oversees
144)	participates	particip
145)	received by	receivd
146)	recorded by	recorded
147)	records	records
148)	referred	referred
149)	responsible for	responsi
150)	restricts	restrict

151) reviews	reviews	
152) signs	signs	
153) specifies	specifie	
154) supervises	supervis	
155) taken by	taken by	
156) tested by	test by	
157) tracked by	tracked	
158) tracks	tracks	
159) undergoes	undergo	

ATTRIBUTES:

1)	ACCESS_AUTHORITY	ACC AUTH	C,20
2)	ACCESS_COMMAND	ACC COMMAND	C,20
3)	ACCESS_FROM_DATE	ACCESS FROM DATE	D
4)	ACCESS_LEVEL	ACCESS LEVEL	C,15
5)	ACCESS_LEVEL_DATE	ACCESS DATE	D
6)	ACCESS_REMARKS	ACC RMKS	C,30
7)	ACCESS_TO_DATE	ACCESS TO DATE	D
8)	ADMIN_SCREEN_ACTION_ITEM_CODE	ADSCRITM	N,2
9)	ADMIN_SCREEN_ACTION_ITEM_COMMENT	ADACTCMNT	C,12
10)	ADMIN_SCREEN_ACTION_ITEM_DATE	ADSCRDT	D
11)	ADP_ACCREDITATION_AUTHORIZATION	ADP ACCREDIT AUTH	C,30
12)	ADP_ACCREDITATION_DATE	ADP ACCREDIT DATE	D
13)	ADP_ACCREDITATION_EXPIRATION	ADP ACCREDIT EXPIRATION	D
14)	ADP_ACCREDITATION_STATUS	ADP ACCREDIT STATUS	C,1
15)	ADP_ACCREDITED_PROCESSING_LEVEL	ADP ACCREDIT PROC LEVEL	C,8
16)	ADP_ACCREDITED_PROCESSING_MODE	ADP ACCREDIT PROC MODE	C,20
17)	ADP_ASSET_DESCRIPTION	ADP ASSET DESC	C,30
18)	ADP_ASSET_LOCATION	ADP ASSET LOC	C,30
19)	ADP_ASSET_NAME	ADP ASSET NAME	C,25
20)	ADP_ASSET_PRICE	ADP ASSET PRICE	$
21)	ADP_ASSET_SERIAL_NUMBER	ADP ASSET SER NUM	C,20
22)	ADP_ASSET_TYPE	ADP ASSET TYPE	C,2

23)	ADP_ASSET_USERS	ADP ASSET USERS	C,10
24)	ADP_CONTINGENCY_PERSONNEL_NAME	ADP CONT PERSONNEL NAME	C,30
25)	ADP_CONTINGENCY_PERSONNEL_TEAM	ADP CONT PERS TEAM	C,15
26)	ADP_CONTINGENCY_SUPPLY_NAME	ADP CONT SUPPLY NAME	C,30
27)	ADP_CONTINGENCY_SUPPLY_PHONE	ADP CONT SUPPLY PHONE	C,8
28)	ADP_CONTINGENCY_SUPPLY_QUANTITY	ADP CONT SUPPLY QUANTITY	N,4
29)	ADP_CONTINGENCY_SUPPLY_SOURCE	ADP CONT SUPPLY SOURCE	C,30
30)	ADP_CONTINGENCY_SUPPLY_STOCK_NUM	ADP CONT SUPPLY STOCK NUM	C,20
31)	ADP_CONT_PERSONNEL_HOME_PHONE	ADP CONT PERS HOME PHONE	C,8
32)	ADP_CONT_PERSONNEL_OFFICE_PHONE	ADP CONT PERS OFFICE PHONE	C,8
33)	ADP_CONT_PERSONNEL_POSITION	ADP CONT PERS POSITION	C,15
34)	ADP_COUNTERMEASURE_NAME	ADP COUNTERMEASURE NAME	C,60
35)	ADP_MEDIA_CLASSIFICATION	ADP MEDIA CLASS	C,15
36)	ADP_MEDIA_DIRECTORY	ADP MEDIA DIRECTORY	C,20
37)	ADP_MEDIA_LAST_UPDATED_DATE	ADP MEDIA LAST UPDATED DATE	D
38)	ADP_MEDIA_LOCATION	ADP MEDIA LOC	C,30
39)	ADP_MEDIA_SERIAL_NUMBER	ADP MEDIA SER NUM	C,15
40)	ADP_MEDIA_TYPE	ADP MEDIA TYPE	C,15
41)	ADP_MEMBER_NAME	ADPMBRNAM	C,50
42)	ADP_SECURITY_OFFICER_APPOINTED	ADP SEC OFF APPOINTED	L
43)	ADP_SECURITY_OFFICER_NAME	ADP SEC OFF NAME	C,30
44)	ADP_SUPERVISOR_LOCATION	ADPSUPVRLOC	C,25
45)	ADP_SUPERVISOR_NAME	ADPSUPVRNAM	C,50
46)	ADP_SUPERVISOR_PHONE	ADPSUPVRPHON	N,5
47)	ADP_SYSTEM_CONTINGENCY_DATE	ADP SYSTEM CONT STATUS DATE	D
48)	ADP_SYSTEM_CONTINGENCY_STATUS	ADP SYSTEM CONT STATUS	C,1
49)	ADP_SYSTEM_DATA_COST	ADP SYSTEM DATA COST	$
50)	ADP_SYSTEM_DATA_PROCESSING_TIME	ADP SYSTEM DATA PROC TIME	N,5,2

51)	ADP_SYSTEM_DATA_SECURITY_MODE	ADP SYSTEM DATA SEC MODE	C,20
52)	ADP_SYSTEM_DATA_TYPE_PROCESSED	ADP SYSTEM DATA TYPE PROC	C,25
53)	ADP_SYSTEM_DESCRIPTION	ADP SYSTEM DESC	C,20
0			
54)	ADP_SYSTEM_EQUIPMENT_COST	ADP SYSTEM EQUIP COST	$
55)	ADP_SYSTEM_ID	ADP SYSTEM ID	C,30
56)	ADP_SYSTEM_LOCATION	ADP SYSTEM LOC	C,25
57)	ADP_SYSTEM_OPS_CONTACT_LOCATION	ADP SYSTEM OPS CONTACT LOC	C,25
58)	ADP_SYSTEM_OPS_CONTACT_NAME	ADP SYSTEM OPS CONTACT NAME	C,25
59)	ADP_SYSTEM_OPS_CONTACT_OFF_CODE	ADP SYSTEM OPS CONTACT OFF CODE	C,5
60)	ADP_SYSTEM_OPS_CONTACT_PHONE	ADP SYSTEM OPS CONTACT PHONE	C,8
61)	ADP_SYSTEM_PRIMARY_FUNCTION	ADP SYSTEM PRIMARY FUNCTION	C,25
62)	ADP_SYSTEM_SCOPE_TYPE	ADP SYSTEM SCOPE	C,1
63)	ADP_SYSTEM_SOFTWARE	ADP SYSTEM SOFTWARE	C,10
0			
64)	ADP_SYSTEM_SOFTWARE_COST	ADP SYSTEM SOFTWARE COST	$
65)	ADP_SYSTEM_TYPE	ADP SYSTEM TYPE	C,7
66)	ALCOHOL_PROBLEMS	ALCOHOL PROBS	L
67)	ANTI_MALARIAL_PROPHYLAXIS_IND	ANTI MAL PRO IND	L
68)	ANTI_MALARIAL_START_DATE	ANTI MAL START DATE	D
69)	ANTI_MALARIAL_STOP_DATE	ANTI MAL STOP DATE	D
70)	ARRESTING_AGENCY	ARR AGENCY	C,25
71)	ARRESTING_AGENCY_CITY	ARR AGENCY CITY	C,25
72)	ARRESTING_AGENCY_STATE	ARR AGENCY STATE	C,2
73)	ARREST_COURT_CITY	ARR COURT CITY	C,25
74)	ARREST_COURT_NAME	ARR COURT NAME	C,40
75)	ARREST_COURT_STATE	ARR COURT STATE	C,2
76)	ARREST_DATE	ARREST DATE	D
77)	ARREST_DISPOSITION	ARR DISP	C,40
78)	ARREST_OFFENSE	ARREST OFFENSE	C,25

79)	ASSESSED_RISK_LEVEL	ASSESSED RISK LEVEL	C,1
80)	BILLET_MEMBER_NAME	BILNAM	C,45
81)	BILLET_NUMBER	BILNUM	C,10
82)	BILLET_RANK_ACTUAL	BILRANKACT	C,4
83)	BILLET_RANK_ASSIGNED	BILRANKASG	C,5
84)	BILLET_RATE_ACTUAL	BILRATACT	C,5
85)	BILLET_RATE_ASSIGNED	BILRATASG	C,15
86)	BILLET_SOCIAL_SECURITY_NUMBER	BILSSN	N,12
87)	BILL_DUTY_SECTION	BILDTYSEC	N,1
88)	BILL_LAST_UPDATED_BY	BILUPDTNAM	C,25
89)	BILL_LAST_UPDATED_DATE	BILDT	D
90)	BILL_MEMBER_NAME	BILMEMNAM	C,25
91)	BILL_NAME	BILNAM	C,45
92)	BILL_NUMBER	BILNUM	N,6
93)	BILL_SPECIAL_QUALIFICATIONS	BILSPECQUAL	C,50
94)	BILL_STATION_DUTY_PROVIDE	BILSTAPRO	C,25
95)	BILL_STATION_NAME	BILSTA	C,25
96)	BILL_STATION_NUMBER_ASSIGNED	BILSTANUM	N,2
97)	BILL_TYPE_CODE	BILLTYP	C,1
98)	CIVILIAN_LICENSE	CIVILIAN LICENSE	C,30
99)	CLASSIFIED_MATERIAL_ADDRESSEE	CLASS MAT ADDRESSEE	C,50
100)	CLASSIFIED_MATERIAL_COPY_NUMBER	CLASS MAT COPY NUM	N,3
101)	CLASSIFIED_MATERIAL_DATE	CLASS MAT DATE	D
102)	CLASSIFIED_MATERIAL_RECEIPT_DATE	CLASS MAT RECEIPT DATE	D
103)	CLASSIFIED_MATERIAL_RECIPIENT	CLASS MAT RECIPIENT	C,30
104)	CLASSMAT_MEMBER_DEPARTMENT	CLASSMATMBRDEPT	C,25
105)	CLASSMAT_MEMBER_NAME	CLASSMATMBRNAM	C,45
106)	CLASSMAT_MEMBER_SSN	CLASSMATMBRSSN	N,12

107)	CLASSMAT_SUPERVISOR_LOCATION	CLASSMATSUPVRLOC	C,25
108)	CLASSMAT_SUPERVISOR_NAME	CLASSMATSUPVRNAM	C,50
109)	CLASSMAT_SUPERVISOR_PHONE	CLASSMATSUPVRPHON	N,5
110)	CLASS_MATERIAL_DESCRIPTION	CLASS MAT DESC	C,60
111)	CLASS_MATERIAL_DESTRUCTION_DATE	CLASS MAT DEST DATE	D
112)	CLASS_MATERIAL_DESTRUCT_MEMBER	CLASS MATERIAL DEST MBR	C,30
113)	CLASS_MATERIAL_DESTRUCT_WITNESS	CLASS MAT DEST WITNESS	C,30
114)	CLASS_MATERIAL_NUMBER_ENCLOSURES	CLASS MAT NUM ENCLS	N,3
115)	CLASS_MATERIAL_ORIGINATOR_CODE	CLASS MAT ORIG CODE	C,7
116)	CLASS_MATERIAL_REGISTERED_NUMBER	CLASS MAT REG NUM	C,15
117)	CLASS_MATERIAL_SERIAL_NUMBER	CLASS MAT SER NUM	C,6
118)	CLEARANCE_ADMINISTRATIVE_COMMENT	CLR ADMIN COMMENTS	C,10
0			
119)	CLEARANCE_AUTHORIZING_COMMAND	CLR AUTH COMMAND	C,25
120)	CLEARANCE_BASIS	CLR BASIS	C,15
121)	CLEARANCE_DATE_GRANTED	CLR DATE	D
122)	CLEARANCE_INVESTIGATION_AGENCY	CLR INVEST AGENCY	C,25
123)	CLEARANCE_INVESTIGATION_DATE	CLR INVEST DATE	D
124)	CLEARANCE_INVESTIGATION_TYPE	CLR INVEST TYPE	C,15
125)	CLEARANCE_INVEST_CASE_CONTROL_NO	CLR INVEST CASE CONT NO	C,15
126)	CLEARANCE_LAST_UPDATED_BY	CLR LAST UPD BY	C,3
127)	CLEARANCE_LAST_UPDATED_DATE	CLR LAST UPD DATE	D
128)	CLEARANCE_LEVEL	CLR LEVEL	C,15
129)	CLEARANCE_MEMBER_DEPARTMENT	CLRNCMBRDEPT	C,25
130)	CLEARANCE_MEMBER_NAME	CLRNCMBRNAM	C,50
131)	CLEARANCE_MEMBER_SSN	CLRNCMBRSSN	N,12
132)	CLEARANCE_REMARKS	CLR REMARKS	C,50
133)	COMMUNIST_ORGANIZATION_MEMBER	COMM ORG MEMBER	L
134)	COMPARTMENT_ACCESS_AUTHORITY	COMPACCAUTH	C,50

135)	COMPARTMENT_ACCESS_LAST_UPDATE	COMPUPDAT	D
136)	COMPARTMENT_DATE_ACCESS_APPROVED	COMPACCDAT	D
137)	COMPARTMENT_NAME	COMP NAME	C,25
138)	COMPARTMENT_NUMBER	COMP NUM	C,20
139)	CONTAINER_INSPECTED_BY	CONT INSPECTED BY	C,3
140)	CONTAINER_INSPECTION/REPAIR_DATE	CONT INSPECTION/REPAIR DATE	D
141)	CONTAINER_INSPECTION_COMMENTS	CONT INSPECTION COMMENTS	C,45
142)	CONTAINER_INSPECTION_CONDITION	CONT INSPECTION COND	C,15
143)	COURIER_END_DATE	COURIER END DATE	D
144)	COURIER_ITEM_DESCRIPTION	COURIER ITEM DESC	C,45
145)	COURIER_ITEM_QUANTITY	COURIER ITEM QTY	N,3
146)	COURIER_ITEM_SIZE	COURIER ITEM SIZE	C,40
147)	COURIER_OTHER_DESCRIPTION	COURIER OTHER DESC	C,45
148)	COURIER_SECURITY_MANAGER	COURIER SEC MNGR	C,30
149)	COURIER_SIGNATURE_DATE	COURIER SIGNATURE DATE	D
150)	COURIER_START_DATE	COURIER START DATE	D
151)	CREDIT_REFERENCE_ACCOUNT_NUMBER	CR REF ACCT NUM	C,25
152)	CREDIT_REFERENCE_CITY	CR REF CITY	C,25
153)	CREDIT_REFERENCE_NAME	CREDIT REF NAME	C,25
154)	CREDIT_REFERENCE_STATE	CR REF STATE	C,2
155)	CREDIT_REFERENCE_STREET_ADDRESS	CR REF STREET	C,25
156)	DAILY_BROMINE_CHLORINE_RESIDUAL	WTRCHBR	C,5
157)	DAPA_CERTIFICATION_DATE	DAPCERTDT	D
158)	DAPA_CERTIFICATION_DUE_DATE	DAPCERDU	D
159)	DAPA_CLIENT_NAME_	DAPCLINAM	C,50
160)	DAPA_CLIENT_NUMBER	DAPCLINUM	N,7
161)	DAPA_DESIGNATION_IND	DAPDESIND	L
162)	DAPA_DETECTION_CATEGORY	DAPDETCAT	N,1

163)	DAPA_DETECTION_PREVIOUS_NUMBER	DAPDETPRE	N,1
164)	DAPA_FACILITY_CODE	DAPCODE	C,5
165)	DAPA_FACILITY_STAFF_NUMBER	DAPSTAFNUM	N,10
166)	DAPA_NAME_OF_ADVISOR	DAPADVNAM	C,45
167)	DAPA_PHONE	DAPPHO	N,12
168)	DAPA_PREVIOUS_TOXOCOLOGY_IND	DAPPRETX	L
169)	DAPA_REFERRAL_AGENCY	DAPREFAGC	C,50
170)	DAPA_REFERRAL_CONTACT_NAME	DAPREFNAM	C,45
171)	DAPA_REFERRAL_PHONE	DAPREFPHO	N,12
172)	DAPA_REFERRAL_TYPE_CODE	DAPREFTYP	N,1
173)	DAPA_SCREEN_CLIENT_SIGNATURE_IND	DAPCLISIG	L
174)	DAPA_SCREEN_COUNSELOR_NAME	DAPCOUNAM	C,50
175)	DAPA_SCREEN_DATE	DAPSCRNDT	D
176)	DAPA_SCREEN_PROGRAM_CODE	DAPSCRNPRO	C,1
177)	DAPA_SCRN_COUNSEL_SIGNATURE_IND	DAPCOUSIG	L
178)	DATE_OTHER_NAME_USED	DATE OTHER NAME	D
179)	DEBT_DELINQUINCY	DEBT DELINQUINCY	L
180)	DENTAL_CLASSIFICATION_NUMBER	DENTNBR	N,1
181)	DENTAL_CLASS_PREVIOUS_NUMBER	DNTPVNB	N,1
182)	DENTAL_EXAM_DUE_DATE	DNTEXDU	D
183)	DENTAL_EXAM_LAST_DATE	DNTEXDT	D
184)	DENTAL_FOLLOWUP_DATE	DNTFWDT	D
185)	DENTAL_PANOGRAPH_DATE_ON_FILE	DNTPNDT	D
186)	DENTAL_SURVEY_DATE	DETSURD	D
187)	DENTAL_SURVEY_INDICATOR	DETSURI	L
188)	DEPARTMENT_HEAD_NAME	DEPTHDNAM	C,45
189)	DEPARTMENT_LOCATION	DEPTLOC	C,25
190)	DEPARTMENT_NAME	DEPTNAM	C,25

191)	DEPARTMENT_PHONE	DEPTPHON	N,7
192)	DISCLOSURE_ACTIVITY	DISC ACTIVITY	C,30
193)	DISCLOSURE_DATE	DISC DATE	D
194)	DISCLOSURE_MEMBER_NAME	DISC MBR NAME	C,30
195)	ELEC_AUTHORIZATION_DATE	ELECAUTHDATE	D
196)	ELEC_AUTHORIZATION_NAME	ELECAUTHNAME	C,50
197)	ELEC_CHECK_DATE	ELECCHECKDATE	D
198)	ELEC_CHECK_DUE_DATE	ELECCHKDU	D
199)	ELEC_CHECK_ELECTRICIAN_NAME	ELECCHECKNAME	C,45
200)	ELEC_CHECK_TYPE	ELECCHKTYPE	C,50
201)	ELEC_EQUIPMENT_WORKCENTER_NAME	ELECEQUIPWC	C,25
202)	ELEC_EQUIP_DIVISION_NAME	ELECEQUIPDIV	C,25
203)	ELEC_EQUIP_ITEM_NAME	ELECEQUIPNAM	C,50
204)	ELEC_EQUIP_ITEM_SERIAL_NUMBER	ELECEQUIPSERNUM	N,15
205)	EMPLOYED_FROM_DATE	EMPLOYED FROM DATE	D
206)	EMPLOYED_TO_DATE	EMPL TO DATE	D
207)	EMPLOYER_ADDRESS	EMPL ADDRESS	C,45
208)	EMPLOYER_IMMEDIATE_SUPERVISOR	EMPL IMMED SUPERVISOR	C,30
209)	EMPLOYER_NAME	EMPL NAME	C,25
210)	EMPLOYER_PHONE	EMPL PHONE	C,12
211)	EMPLOYMENT POSITION	EMPLOYMENT POS	C,30
212)	EMPLOYMENT_POSITION	EMPLOYMENT POS	C,30
213)	EQUIPMENT_FIT_TEST_TYPE	EQUIPFITTEST	C,25
214)	EQUIPMENT_IDENTIFICATION_NUMBER	EQUIP ID NUM	C,35
215)	EQUIPMENT_LOCATION	EQUIP LOC	C,30
216)	EQUIP_FIT_TEST_DATE	EQFITTESTDT	D
217)	EXPOSURE_INDICATOR	EXP IND	L
218)	EYEWEAR_INDICATOR	EYEWRIN	L

219)	EYEWEAR_SPECIAL_INDICATOR	EYESPIN	L
220)	EYE_COLOR_VISION_TEST	EYECOLORTEST	C,25
221)	EYE_DEPTH_PERCEPTION	EYEDEPTHPER	C,50
222)	EYE_DISTANT_VISION_LEFT	EYEDISTLFT	N,15
223)	EYE_DISTANT_VISION_RIGHT	EYEDISTRHT	N,15
224)	EYE_EXAM_DATE	EYEEXDATE	D
225)	EYE_EXAM_TYPE	EYEXAMTYP	C,45
226)	EYE_INTRAOCULAR_TENSION	EYEINTTRAOCTEN	C,50
227)	EYE_NEAR_VISION_LEFT	EYENEARLFT	N,25
228)	EYE_NEAR_VISION_RIGHT	EYENEARRHT	N,25
229)	EYE_NUMBER_OF_CONTACT_LENSES	EYENUMC	N,1
230)	EYE_NUMBER_OF_SPECTACLES	EYENUMS	N,1
231)	EYE_REFRACTION_LEFT	EYEREFRACTLFT	N,4,2
232)	EYE_REFRACTION_RIGHT	EYEREFRACTRHT	N,4,2
233)	FILED_FOR_BANKRUPTCY	BANKRUPTCY	L
234)	FOREIGN_ASSOCIATE_ADDRESS	FOR ASSOC ADDRESS	C,45
235)	FOREIGN_ASSOCIATE_BIRTH_DATE	FOR ASSOC BIRTH DATE	D
236)	FOREIGN_ASSOCIATE_BIRTH_PLACE	FOR ASSOC BIRTH PLACE	C,25
237)	FOREIGN_ASSOCIATE_CITIZENSHIP	FOR ASSOC CITIZENSHIP	C,25
238)	FOREIGN_ASSOCIATE_NAME	FOR ASSOC NAME	C,25
239)	FOREIGN_ASSOCIATE_RELATIONSHIP	FOREIGN ASSOC REL	C,20
240)	FOREIGN_EMPLOYMENT	FOREIGN EMPL	L
241)	FOREIGN_FINANCIAL_INTERESTS	FOREIGN FIN INT	L
242)	FOREIGN_GOVERNMENT_CONTACT	FOREIGN GOVT CONTACT	L
243)	FOREIGN_UNOFFICIAL_TRAVEL	FOREIGN UNOFF TRAVEL	L
244)	FOREIGN_VISITOR_ARRIVAL_DATE	FOREIGN VISITOR ARR DATE	D
245)	FOREIGN_VISITOR_CITIZENSHIP	FOREIGN VISITOR CITIZENSHIP	C,30
246)	FOREIGN_VISITOR_COUNTRY	FOREIGN VISITOR COUNTRY	C,30

247)	FOREIGN_VISITOR_DEPARTURE_DATE	FOREIGN VISITOR DEP DATE	D
248)	FOREIGN_VISITOR_DUAL_CITIZENSHIP	FOREIGN VISITOR DUAL CITIZENSHIP	L
249)	FOREIGN_VISITOR_HOST_NAME	FOREIGN VISITOR HOST NAME	C,30
250)	FOREIGN_VISITOR_HOST_PHONE	FOREIGN VISITOR HOST PHONE	C,8
251)	FOREIGN_VISITOR_INFO_CLEARANCE	FOREIGN VISITOR INFO CLEARANCE	L
252)	FOREIGN_VISITOR_NAME	FOREIGN VISITOR NAME	C,45
253)	FOREIGN_VISITOR_POSITION	FOREIGN VISITOR POSITION	C,30
254)	FOREIGN_VISITOR_UPDATED_BY	FOREIGN VISITOR UPDATED BY	C,3
255)	FOREIGN_VISITOR_VISIT_PURPOSE	FOREIGN VISITOR VISIT PURPOSE	C,30
256)	GARNISHED_WAGES	GARNISHED WAGES	L
257)	GAS_FREE_COMPARTMENT_NAME	GASFRCMPT	C,50
258)	GAS_FREE_COMPARTMENT_NUMBER	GASFRCMPTNUM	N,12
259)	GAS_FREE_DESIGNATION_INDICATOR	GAFRDESIND	L
260)	GAS_FREE_ENGINEER_CERT_DATE	GASFRCERTDT	D
261)	GAS_FREE_ENGINEER_DIVISION	GASFRENGDIV	C,25
262)	GAS_FREE_ENGINEER_NAME	GASFRENGNAM	C,25
263)	GAS_FREE_ENTRY_TYPE	GASFRENTTYP	C,50
264)	GAS_FREE_EQUIPMENT_NAME	GASFREQUPNAM	C,50
265)	GAS_FREE_EQUIPMENT_SERIAL_NUMBER	GASFREQUIPSER	N,15
266)	GAS_FREE_TEST_ACTIONS	GASFRTESACT	C,12
0			
267)	GAS_FREE_TEST_DATE	GASFREEDT	D
268)	GAS_FREE_TEST_EXPIRATION_DATE	GASFREXPDT	D
269)	GAS_FREE_TEST_EXPIRATION_TIME	GASFREXPTIM	N,4
270)	GAS_FREE_TEST_INSTRUCTIONS	GASFRTESTINST	C,12
0			
271)	GAS_FREE_TEST_TIME	GASFREETIME	T
272)	GAS_FREE_TEST_TYPE	GASFRTESTTYP	C,25
273)	GAS_FREE_WORK_TYPE	GASFRWKTYP	C,50
274)	HAZARD_COMPARTMENT_DIVISION	HAZCMPTDIV	C,25

275)	HAZARD_COMPARTMENT_FUNCTION	HAZCMPTFUN	C,79
276)	HAZARD_COMPARTMENT_NAME	HAZCMPT	C,45
277)	HAZARD_COMPARTMENT_NUMBER	HAZCMPTNUM	N,12
278)	HAZARD_COMPARTMENT_WORKCENTER	HAZCMPTWC	C,10
279)	HAZARD_CSMP_ENTRY_INDICATOR	HAZCSMPIND	L
280)	HAZARD_CSMP_NUMBER	HAZCSMPNUM	N,10
281)	HAZARD_IDENTIFICATION_CODE	HAZID	N,2
282)	HAZARD_INSPECTION_DATE	HAZINSPDT	D
283)	HAZARD_INSPECTOR_NAME	HAZINSPNAM	C,25
284)	HAZARD_MISHAP_PROBABILITY_CODE	HAZMISPROB	C,1
285)	HAZARD_REPORT_DATE	HAZREPDAT	D
286)	HAZARD_REPORT_DEPARTMENT_CODE	HAZREPDEP	C,4
287)	HAZARD_REPORT_LOCATION	HAZREPLOC	C,50
288)	HAZARD_REPORT_ORIGINATOR_NAME	HAZREPORIG	C,50
289)	HAZARD_REPORT_TIME	HAZREPTIM	N,4
290)	HAZARD_RISK_ASSESSMENT_CODE	HAZRAC	N,1
291)	HAZARD_SEQUENCE_NUMBER	HAZNUM	N,5
292)	HAZARD_SEVERITY_CATEGORY_CODE	HAZSEVCAT	N,1
293)	HAZMAT_CHEMICAL_NAME	HAZCHEMNAM	C,50
294)	HAZMAT_CHRONIC_HAZARD_IND	HAZCRON	L
295)	HAZMAT_CONTAINER_SIZE	HAZCNTRSIZ	C,25
296)	HAZMAT_CONTAINER_TYPE	HAZCONTRTYP	C,25
297)	HAZMAT_DEPT_CODE	HAZDEPT	C,5
298)	HAZMAT_ESTIMATED_USAGE	HAZESTUSG	C,25
299)	HAZMAT_ITEM_NUMBER	HAZITEMNBR	N,5
300)	HAZMAT_LOCKER_LOCATION	HAZLOC	C,75
301)	HAZMAT_MANUFACTURER_DESCRIPTION	HAZMANUF	C,75
302)	HAZMAT_METHOD_OF_APPLICATION	HAZAPPL	C,50

303)	HAZMAT_NSN	HAZNSN	N,25
304)	HAZMAT_QUANTITY_ON_HAND	HAZQOH	N,3
305)	HAZMAT_SHELF_LIFE	HAZSHELF	N,2
306)	HAZMAT_SPECIFICATION_NUMBER	HAZSPEC	N,25
307)	HAZMAT_TRADE_NAME	HAZTRANAM	C,50
308)	HEARING_90_DAY_FOLLWUP_EXAM_DATE	AUDIOFOLEXDT	D
309)	HEARING_AUDIOGRAM_COMMENTS	AUDIOCMNT	C,120
310)	HEARING_AUDIOGRAM_INDICATOR	AUDIOGRMIND	L
311)	HEARING_AUDIOGRAM_LAST_DATE	AUDIODT	D
312)	HEARING_AUDIOGRAM_TYPE	AUDIOTYPE	C,25
313)	HEARING_AUDIOGRAM_TYPE_DUE_DATE	AUDIODUDT	D
314)	HEARING_COMPARTMENT_LOCATION	HEARCMPTLOC	N,10
315)	HEARING_DOUBLE_PROTECTION_IND	DBLPROTECT	L
316)	HEARING_EAR_PLUG_ISSUE_DATE	EARPLUGDT	D
317)	HEARING_EAR_PLUG_SIZE_LEFT	EARPLUGLFT	C,2
318)	HEARING_EAR_PLUG_SIZE_RIGHT	EARPLUGRHT	C,2
319)	HEARING_EAR_PLUG_TYPE	EARPLUGTYPE	C,20
320)	HEARING_NOISE_SOURCE_CODE	HEARSRC	N,2
321)	HEARING_SURVEY_COMPARTMENT	HEARSURCOMP	C,25
322)	HEARING_SURVEY_INDICATOR	HEARIND	L
323)	HEARING_SURVEY_LAST_DATE	HEARSURVLD	D
324)	HEARING_SURVEY_NAME	HEARSURVNAM	C,25
325)	HEARING_SURVEY_NOISE_LEVEL	HEARNOISLVL	N,3
326)	HEARING_SURVEY_ORGANIZATION	HEARSURVORG	C,50
327)	HEAT_EXPOSURE_DATE	HEXPDT	D
328)	HEAT_EXPOSURE_TIME	HEXPTIME	T
329)	HEAT_EXP_PHEL_COMMENTS	HEAT EXP PHEL CMNT	C,50
330)	HEAT_EXP_PHEL_EXPOSURE_TIME	HEAT EXP PHEL TIME	N,2,1

331)	HEAT_EXP_PHEL_OPERATOR_NUMBER	HEAT EXP PHEL OPER NBR	N,1
332)	HEAT_EXP_PHEL_RECOVERY_TIME	HEAT EXP PHEL RCVR TIME	T
333)	HEAT_STRESS_EQUIPMENT_TYPE	HEATSTREQTYP	C,50
334)	HEAT_STRESS_EQUIP_CAL_DATE	HESTREQCALDT	D
335)	HEAT_STRESS_EQUIP_RECAL_DATE	HESTREQCALDU	D
336)	HEAT_STRESS_EQUIP_RECAL_IND	HESTRRECALIND	L
337)	HEAT_STRESS_EQUIP_TYPE_QUANTITY	HEATSTREQQTY	C,25
338)	HEAT_SURVEY_COMMENTS	HEAT SURV CMT	C,75
339)	HEAT_SURVEY_DRY_BULB_TEMP	HEAT SURV DBT	N,5
340)	HEAT_SURVEY_FUEL_PRESENT_IND	HEAT SURV FUEL IND	L
341)	HEAT_SURVEY_GLOBE_TEMP	HEAT SURV GLOBE TEMP	N,5
342)	HEAT_SURVEY_OUT_DRY_BULB_TEMP	HEAT SURV ODBT	N,5
343)	HEAT_SURVEY_OUT_WET_BULB_TEMP	HEAT SURV OWBT	N,5
344)	HEAT_SURVEY_SAMPLE_DATE	HEAT SUR SMPL DATE	D
345)	HEAT_SURVEY_SAMPLE_LOCATION	HEAT SURV SMPL LOC	C,25
346)	HEAT_SURVEY_SAMPLE_TIME	HEAT SURV SMPL TIME	T
347)	HEAT_SURVEY_WET_BULB_TEMP	HEAT SURV WBT	N,5
348)	HEAT_SURVEY_WET_BULB_TEMP_INDEX	HEAT SURV WBT IX	N,6
349)	ILLEGAL_SUBSTANCE_PURCHASE/PROD	ILLEGAL SUBS PURCH	L
350)	ILLEGAL_SUBSTANCE_USE	ILLEGAL SUBS USE	L
351)	IMMUNIZATION_BATCH_NUMBER	IMMUNBATCHNMBR	N,10
352)	IMMUNIZATION_CREW_ALLERGY_IND	IMMUNCRWALRG	C,50
353)	IMMUNIZATION_DATE	IMMUN DATE	D
354)	IMMUNIZATION_DOSAGE	IMMUNDOSE	C,25
355)	IMMUNIZATION_DUE_DATE	IMMUN DUE DATE	D
356)	IMMUNIZATION_INDICATOR	IMMUN IND	L
357)	IMMUNIZATION_PROVIDER_NAME	IMMUNPROVNAM	C,45
358)	IMMUNIZATION_TYPE	IMMUN TYPE	C,25

359)	INDIVIDUAL_CLEARANCE	INDIV CLEAR	C,13
360)	INDIVIDUAL_ESCORT_REQUIRED	INDIV ESCORT	L
361)	INDIVIDUAL_LAST_UPDATED_BY	INDIV LAST UPD BY	C,3
362)	INDIVIDUAL_LAST_UPDATED_DATE	INDIV LAST UPD DATE	D
363)	INDIVIDUAL_NAME	INDIVIDUAL_NAME	C,45
364)	INDIVIDUAL_ORGANIZATION	INDIV ORG	C,25
365)	INDIVIDUAL_ORGANIZATION_PHONE	INDIV ORG PHONE	C,12
366)	INDIVIDUAL_SOCIAL_SECURITY_NUM	SSN	C,11
367)	INDIVIDUAL_SOCIAL_SECURITY_NUMBR	SSN	C,11
368)	INFORMATION_DISCLOSURE_TYPE	INFO DISCLOSURE TYPE	C,20
369)	INFO_CLEARANCE_AUTHORITY_NAME	INFO CLEAR AUTH NAME	C,30
370)	INJURY_CIRCUMSTANCES_TEXT	INJCIRC	C,75
371)	INJURY_DATE	INJDAT	D
372)	INJURY_DIAGNOSIS	INJDIAG	C,12
0			
373)	INJURY_DISABILITY	INJDISABL	L
374)	INJURY_FIRST_SEEN_DATE	INJFIRDAT	D
375)	INJURY_FIRST_SEEN_TIME	INJFIRTIM	T
376)	INJURY_LOCATION	INJLOC	C,12
0			
377)	INJURY_LOCATION_OF ACCIDENT	ACC LOC	C,25
378)	INJURY_MED_DEPT_NAME	INJMEDNAM	C,50
379)	INJURY_MISHAP_REPORT_IND	INJMISHAP	L
380)	INJURY_PROGNOSIS	INJPROG	C,12
0			
381)	INJURY_REPORT_DATE	INJREPDAT	D
382)	INJURY_REPORT_INDICATOR	INJREPIND	L
383)	INJURY_SEQUENCE_NUMBER	INJSEQNUM	N,5
384)	INJURY_START_TIME	INJSTRTIM	T
385)	INJURY_SUBJECT_CONDITION_CODE	INJSUBCON	N,9
386)	INJURY_TREATMENT	INJTRT	C,12
0			

387)	INJURY_WITNESS_DEPARTMENT	INJWITDEP	C,10
388)	INJURY_WITNESS_DIVISION	INJWITDIV	C,25
389)	INJURY_WITNESS_NAME	INJWITNAM	C,45
390)	INVENTORY_DATE	INVDATE	D
391)	INVENTORY_LOCATION	INVLOC	C,50
392)	INVENTORY_TYPE	INVTYP	C,25
393)	INV_ITEM_ALLOWANCE	INVALW	N,4
394)	INV_ITEM_EXPIRATION_DATE	INVEXPDT	D
395)	INV_ITEM_FIRST_INSPECTION_DATE	INVFIRINSP	D
396)	INV_ITEM_INSPECTION_CODE	INVINSPCODE	C,1
397)	INV_ITEM_INSPECTION_DATE	INVITINSPDT	D
398)	INV_ITEM_INSPECTION_DUE_DATE	INVINSPDU	D
399)	INV_ITEM_LOCAL_MANUFACTURER	INVLOCMANF	C,50
400)	INV_ITEM_LOT_NUMBER	INVLOTNUM	N,7
401)	INV_ITEM_MANUFACTURE_DATE	INVMANFDT	D
402)	INV_ITEM_NATIONAL_STOCK_NUMBER	INVNSN	N,15
403)	INV_ITEM_NOMENCLATURE	INVITMNOM	C,50
404)	INV_ITEM_QUANTITY_ON_HAND	INVQOH	N,4
405)	INV_ITEM_SHELF_LIFE	INVSHELF	N,3
406)	INV_ITEM_TYPE	INVITMTYP	C,25
407)	INV_ITEM_UNIT_OF_ISSUE	INVUNIT ISS	C,25
408)	KEY/LOCK_LOCATION	KEY LOCK LOC	C,20
409)	KEY/LOCK_SERIAL_NUMBER	KEY LOCK SERIAL NUM	C,15
410)	KEY/LOCK_TYPE	KEY LOCK TYPE	C,4
411)	KEY_COPY_NUMBER	KEYCOPYNUM	N,4
412)	KEY_CUSTODIAN_NAME	KEYCUSTNAM	C,50
413)	KEY_ISSUED_TO_NAME	KEYISSNAM	C,50
414)	KEY_ISSUE_DATE	KEYISSDAT	D

415)	KEY_LOCKER_NUMBER	KEYLKRNUM	N,4
416)	KEY_RETURN_DATE	KEYRETDAT	D
417)	KEY_SERIAL_NUMBER	KEY SER NUM	C,10
418)	LAB_TEST_COMMENTS	LABTESTCMNT	C,12
0			
419)	LAB_TEST_DATE	LABTESTDAT	D
420)	LAB_TEST_RESULT	LABTESTRESULT	C,50
421)	LAB_TEST_SEQUENCE_NUMBER	LABSEQNBR	N,6
422)	LAB_TEST_TYPE	LABTESTTYPE	C,45
423)	LENS_TYPE	EYELNTY	C,1
424)	MEDICAL_CHIT_DIAGNOSIS	MEDCHTDIAG	C,70
425)	MEDICAL_CHIT_EFFECTIVE_DATE	MEDCHITEFFDAT	D
426)	MEDICAL_CHIT_EXPIRATION_DATE	MEDCHTEXPDAT	D
427)	MEDICAL_CHIT_ISSUING_ACTIVITY	MEDCHTISSACTVTY	C,40
428)	MEDICAL_CHIT_REASON	MEDCHTRSN	C,70
429)	MEDICAL_CHIT_TO_ACTIVITY	MEDCHTTOACTVY	C,40
430)	MEDICAL_CHIT_TYPE	MEDCHITTYPE	C,25
431)	MEDICAL_CONSULT_DATE	MEDCONSDAT	D
432)	MEDICAL_CONSULT_DIAGNOSIS	MEDCONSDIAG	C,12
0			
433)	MEDICAL_CONSULT_FOLLOW_UP_IND	MEDCONSFOLLWIND	L
434)	MEDICAL_CONSULT_LOCATION	MEDCONSLOC	C,75
435)	MEDICAL_CONSULT_PREVIOUS_RESULTS	MEDCONSPREVRSLT	C,12
0			
436)	MEDICAL_CONSULT_PROVIDER_NAME	EXTPRONAM	C,12
0			
437)	MEDICAL_CONSULT_PROVIDER_NUM	MEDCONSPROVNUM	N,15
438)	MEDICAL_CONSULT_PROVIDER_NUMBR	MEDCONSPROVNUM	N,15
439)	MEDICAL_CONSULT_REASON	MEDCONSREASN	C,79
440)	MEDICAL_CONSULT_REFERRAL_TO	MEDCONSREFTO	C,50
441)	MEDICAL_CONSULT_REPORT_RECEIVED	MEDCONSREPTRECVD	L
442)	MEDICAL_CONSULT_TIME	MEDCONSTIM	T

443)	MEDICAL_CONSULT_TYPE	MEDCONSTYPE	C,1
444)	MEDICAL_DEPT_LOCATION	MEDDEPLOCA	C,25
445)	MEDICAL_DEPT_PHONE	MEDDEPPHON	N,7
446)	MEDICAL_DEPT_REPRESENTATIVE_NAME	MEDSENIORNAME	C,50
447)	MEDICAL_DEPT_REPRESENTATIVE_SSN	MEDDEPTREPSSN	N,15
448)	MEDICAL_ID_TAG_INDICATOR	MED ID TAG IND	L
449)	MEDICAL_ID_TAG_ISSUE_DATE	MED ID TAG ISS DATE	D
450)	MEDICAL_ID_TAG_SIGNATURE_IND	MED ID SIG	L
451)	MEDICAL_MEMBER_NAME	MEDMBRNAM	C,45
452)	MEDICAL_MEMBER_SSN	MEDMBRSSN	N,12
453)	MEDICAL_RADIATION_SURVEILL_IND	MEDRADSURVEILIND	L
454)	MEDICAL_RAD_HEALTH_OFFICER_NAME	MEDRADHEALNAM	C,50
455)	MEDICAL_RAD_HEALTH_OFFICER_SSN	MEDRADHEALSSN	N,15
456)	MEDICAL_STATUS_INDICATOR	MEDSTATUS	L
457)	MEDICINAL_AUTHORIZATION_REQUIRED	MEDAUTHREQD	L
458)	MEDICINAL_DATE	MEDDAT	D
459)	MEDICINAL_ISSUE_DATE	MEDDAT	D
460)	MEDICINAL_ISSUE_TIME	MEDTIM	T
461)	MEDICINAL_NATL_STOCK_NBR	MEDNSN	C,13
462)	MEDICINAL_NSN	MEDNSN	C,13
463)	MEDICINAL_NSN_LOCATION	MEDNSNLOC	C,16
464)	MEDICINAL_PATIENT_NAME	MEDPATIENTNAM	C,45
465)	MEDICINAL_PRESCRIPTION_NUMBER	MEDSCRIPNUM	N,7
466)	MEDICINAL_QUANTITY_ISSUED	MEDQTYISSUE	C,50
467)	MEDICINAL_TIME	MEDTIM	T
468)	MED_SURVEIL_AUTH_COMMAND	MEDSURAUTHCMD	C,50
469)	MED_SURVEIL_COMMAND_DURATION	MEDSURFMDUR	C,50
470)	MED_SURVEIL_COMMAND_NAME	MEDSURCMDNAM	C,75

471)	MED_SURVEIL_COMMAND_UNIT_ID_CODE	MEDSURUIC	N,6
472)	MED_SURVEIL_EVAL_AUTHORITY_NAME	MEDSURAUTHNAM	C,50
473)	MED_SURVEIL_EVAL_COMMENTS	MEDSUREVALCMNT	C,120
474)	MED_SURVEIL_EVAL_DATE	MEDSURVDT	D
475)	MED_SURVEIL_EVAL_INDICATOR	MEDSURVEVAL	L
476)	MED_SURVEIL_JOB_DESCRIPTION	MEDSURJOB	C,120
477)	MED_SURVEIL_JOB_PROCESS	MEDSURPRO	C,120
478)	MED_SURVEIL_PROGRAM_INDICATOR	MEDSURIND	L
479)	MED_SURVEIL_TYPE	MEDSURTYP	C,50
480)	MED_SURV_AUTHORITY_COMMAND	MEDSURAUTHCMD	C,50
481)	MED_SURV_COMMAND_DURATION	MEDSURFMDUR	C,50
482)	MED_SURV_COMMAND_NAME	MEDSURCMDNAM	C,75
483)	MED_SURV_COMMAND_UNIT_ID_CODE	MEDSURUIC	N,6
484)	MED_SURV_EVALUATION_COMMENTS	MEDSUREVALCMNT	C,120
485)	MED_SURV_EVALUATION_DATE	MEDSURVDT	D
486)	MED_SURV_EVALUATION_INDICATOR	MEDSURVEVAL	L
487)	MED_SURV_EVAL_AUTHORITY_NAME	MEDSURAUTHNAM	C,50
488)	MED_SURV_JOB_DESCRIPTION	MEDSURJOB	C,120
489)	MED_SURV_JOB_PROCESS	MEDSURPRO	C,120
490)	MED_SURV_PROGRAM_INDICATOR	MEDSURIND	L
491)	MED_SURV_TYPE	MEDSURTYP	C,50
492)	MEMBER_ALLERGY_INDICATOR	MEMALRGYIND	L
493)	MEMBER_BODY_FAT_PERCENT	MEMBODYFAT	N,2
494)	MEMBER_CLIENT_NUMBER	MBRCLINUM	N,7
495)	MEMBER_DEPARTMENT_ASSIGNED	MBRDEPT	C,15
496)	MEMBER_DIVISION_ASSIGNED	MBR DIV	C,15
497)	MEMBER_FIRST_NAME	MBRFIRNAM	C,25
498)	MEMBER_HEIGHT	MEMHT	N,3,1

499)	MEMBER_LAST_NAME	MBRLASNAM	C,25
500)	MEMBER_MEDICAL_SURVEILLANCE_IND	MEMMEDSURV	L
501)	MEMBER_RANK	MBRRANK	C,4
502)	MEMBER_RATE	MBRRATE	C,25
503)	MEMBER_RH_ABO_BLOOD_TYPE	MEMBLOOTTYP	C,25
504)	MEMBER_SOCIAL_SECURITY_NUMBER	MBRSSN	N,12
505)	MEMBER_WEIGHT	MEMWGT	N,4, 1
506)	MEMBER_WEIGHT_CONTROL_PROGRAM	MEMWGTCONTRL	L
507)	MEMBER_WORKCENTER	MBRWKCTR	C,6
508)	MEMBER_WORKCENTER_ASSIGNED	MBRWKCTR	C,5
509)	MEMBER_WORKCENTER_PHONE_NUMBER	MBRPHON	N,5
510)	MENTAL_HEALTH_TREATMENT	MENTAL HEALTH TREAT	L
511)	MENTAL_PROBLEMS	MENTAL PROBS	L
512)	MISCONDUCT_CODE	MISCON	N,1
513)	MISHAP_CATEGORY	MISCAT	C,45
514)	MISHAP_CAUSE	MISCAUSE	C,12 0
515)	MISHAP_DATE	MISDAT	D
516)	MISHAP_DEPARTMENT	MISDEP	C,4
517)	MISHAP_DESCRIPTION	MISDESC	C,12 0
518)	MISHAP_DIVISION	MISDIV	C,6
519)	MISHAP_EXTERNAL_REPORT_IND	MISEXTREP	L
520)	MISHAP_EXTERNAL_REPORT_NUMBER	MISEXTREPNUM	N,12
521)	MISHAP_LOCATION	MISLOC	C,12 0
522)	MISHAP_PHOTO_INDICATOR	MISPHOTO	L
523)	MISHAP_REPORT_DATE	MISREPDAT	D
524)	MISHAP_REPORT_INDICATOR	MISREPIND	L
525)	MISHAP_REPORT_OFFICER	MISREPOFF	C,50
526)	MISHAP_REPORT_OFFICER_	MISREPOFF	C,50

527)	MISHAP_SEQUENCE_NUMBER	MISSEQ	N,5
528)	MISHAP_SUPERVISOR_NAME	MISSUPNAM	C,25
529)	MISHAP_TIME	MISTIM	N,4
530)	MISHAP_WITNESS_DIVISION	MISWITDIV	C,6
531)	MISHAP_WITNESS_NAME	MISWITNAM	C,25
532)	MISHAP_WITNESS_NUMBER	MISWITNUM	N,2
533)	MOTOR_VEH_COORDINATOR_NAME	MVEHCOORDNAM	C,25
534)	MOTOR_VEH_LICENSE_INDICATOR	MVEHLICIND	L
535)	MOTOR_VEH_SAFETY_COURSE_DATE	MVEHSAFCRSDT	D
536)	MOTOR_VEH_SAFETY_COURSE_DUE_DATE	MVEHSAFCRSDU	D
537)	MOTOR_VEH_SAFETY_COURSE_IND	MVEHSAFCRSIND	L
538)	MOTOR_VEH_SAFETY_COURSE_NAME	MVEHSAFNAM	C,50
539)	MOTOR_VEH_TYPE	MVEHTYP	C,45
540)	NONDISCLOSURE_ACCEPTANCE_COMMAND	NONDISC ACCEPT COMMAND	C,30
541)	NONDISCLOSURE_ACCEPTANCE_DATE	NONDISC ACCEPT DATE	D
542)	NONDISCLOSURE_ACCEPTANCE_NAME	NONDISC ACCEPT NAME	C,30
543)	NONDISCLOSURE_ACCEPTANCE_SIGN	NONDISC ACCEPT SIGN	L
544)	NONDISCLOSURE_DEBRIEF_WITNESS	NONDISC SEC DEBRIEF WITNESS	C,30
545)	NONDISCLOSURE_MEMBER_COMMAND	NONDISC MBR COMMAND	C,30
546)	NONDISCLOSURE_MEMBER_SIGNATURE	NONDISC MBR SIGNATURE	L
547)	NONDISCLOSURE_SECURITY_DEBRIEF	NONDISC SEC DEBRIEF	L
548)	NONDISCLOSURE_SEC_DEBRIEF_DATE	NONDISC SEC DEBRIEF DATE	D
549)	NONDISCLOSURE_WITNESS_COMMAND	NONDISC WITNESS COMMAND	C,30
550)	NONDISCLOSURE_WITNESS_DATE	NONDISC WITNESS DATE	D
551)	NONDISCLOSURE_WITNESS_NAME	NONDISC WITNESS NAME	C,30
552)	NONDISCLOSURE_WITNESS_SIGNATURE	NONDISC WITNESS SIGNATURE	L
553)	NONDISC_SEC_DEBRIEF_WITNESS_SIGN	NONDISC SEC DBRF WIT SIGN	L
554)	NUMBER_OF_DAYS_LOST	LOSSDAY	N,3

555)	NUMBER_OF_ROOMMATES	NUM OF ROOMMATES	C,2
556)	OFF_DUTY_COORDINATOR_NAME	COORDNAM	C,25
557)	OFF_DUTY_SAFETY_TYPE	OFFDTYTYP	C,3
558)	OFF_DUTY_TRAINING_TOPIC	OFFDTYTRNGTOP	C,50
559)	OFF_DUTY_TRAINING_TOPIC_DATE	OFFDTYTRNGTOPDT	D
560)	OFF_DUTY_TYPE_TRAINING_IND	OFFDTYTRNGIND	L
561)	ORGANIZATION_CITY	ORG CITY	C,25
562)	ORGANIZATION_FROM_DATE	ORG FROM DATE	D
563)	ORGANIZATION_NAME	ORG NAME	C,30
564)	ORGANIZATION_STATE	ORG STATE	C,2
565)	ORGANIZATION_STREET_ADDRESS	ORG STREET	C,25
566)	ORGANIZATION_TO_DATE	ORG TO DATE	D
567)	ORGANIZATION_TYPE	ORG TYPE	C,15
568)	OTHER_NAMES_USED	OTHER NAME	C,25
569)	PERSONAL_PROTECTIVE_EQUIP_CODE	PERSPROEQIPCD	C,1
570)	PERSONAL_PROTECTIVE_EQUIP_IND	HAZPERSPROT	L
571)	PEST_CONTOL_TYPE_OF_PEST	PEST CON TYPE PEST	C,25
572)	PEST_CONTROL_ACTION	PESTACTION	C,25
573)	PEST_CONTROL_COMMENTS	PEST CON CMNT	C,50
574)	PEST_CONTROL_DATE	PEST CON DATE	D
575)	PEST_CONTROL_FOLLOW_UP_DATE	PEST CON FOL DATE	D
576)	PEST_CONTROL_OPERATOR_INITIAL	PEST CON OPER INIT	C,3
577)	PEST_CONTROL_PESTICIDE_AMOUNT	PEST CON PESTICIDE AMT	N,4
578)	PEST_CONTROL_PESTICIDE_TYPE	PEST CON PESTICIDE TYPE	C,10
579)	PEST_CONTROL_PEST_COUNT	PEST CON COUNT	N,4
580)	PEST_CONTROL_SIGNATURE	PEST CON SIG	C,25
581)	PEST_CONTROL_SPACE_SPRAYED	PEST CON SPACE SPRAY	C,25
582)	PHYSICAL_CLINICAL_EVALUATION_TYP	PHYCLINEVALTYP	N,2

583)	PHYSICAL_EXAM_COMMENTS	PHYSCOMNT	C,120
584)	PHYSICAL_EXAM_DATE	PHYEXDAT	D
585)	PHYSICAL_EXAM_DUE_DATE	PHYEXDU	D
586)	PHYSICAL_EXAM_FACILITY	PHYSFACILITY	C,78
587)	PHYSICAL_EXAM_INDICATOR	PHYEXIND	L
588)	PHYSICAL_EXAM_RECOMMENDATIONS	PHYSREX	C,120
589)	PHYSICAL_EXAM_RESULTS	PHYSRESLT	C,79
590)	PHYSICAL_EXAM_TYPE	PHYEXTYP	N,2
591)	PHYSICAL_MED_SURVEILLANCE_IND	PHYSMEDSURVIND	L
592)	PHYSICAL_MEMBER_DIVISION	PHYSMBRDIV	C,15
593)	PHYSICAL_MEMBER_NAME	PHYSMBRNAM	C,45
594)	PHYSICAL_MEMBER_WORKCENTER	PHYMBRWKCTR	C,15
595)	PHYSICAL_MEMBER_WORKCENTER_PHONE	PHYMBRPHON	N,5
596)	PHYSICAL_PHYSICIAN_NAME	PHYSNAME	C,45
597)	PHYSICAL_PURPOSE_FOR_EXAM	PHYPURPOSE	C,50
598)	PHYSICAL_QUALIFICATION_INDICATOR	PHYSQUAL	L
599)	PHYSICAL_SUPERVISOR_DEPARTMENT	PHYSUPVRDEPT	C,15
600)	PHYSICAL_SUPERVISOR_LOCATION	PHYSUPVRLOC	C,25
601)	PHYSICAL_SUPERVISOR_NAME	PHYSUPVRNAM	C,45
602)	PHYSICAL_SUPERVISOR_PHONE	PHYSUPVRPHON	N,4
603)	PPD_COMMENTS	PPD CMNT	C,50
604)	PPD_CONVERTER_INDICATOR	PPD CONV IND	L
605)	PPD_LAST_EVAL_DATE	PPD LAST DATE	D
606)	PPD_NEXT_EVAL_DATE	PPD NEXT DATE	D
607)	PPD_REQUIRED_FOLLOW_UP_COMPLETE	PPD REQD FOLLOW UP COMPL	L
608)	PPD_SCREEN_DATE	PPD SCRN DATE	D
609)	PPD_SCREEN_DUE_DATE	PPD SCRN DUE DATE	D
610)	PRESCRIPTION_DRUG_MISUSE	PRESCRIP DRUG MISUSE	L

611)	PRP_ASSIGNMENT_DATE	PRP ASSIGNMENT DATE	D
612)	PRP_ASSIGNMENT_STATUS	PRP ASSIGN STATUS	C,8
613)	PRP_BADGE_NUMBER	PRP BADGE	N,10
614)	PRP_BILLET_NAME	PRP BILLET NAME	C,25
615)	PRP_BILLET_TYPE	PRP BILLET TYPE	C,10
616)	PRP_CERTIFICATION_DATE	PRP CERT DATE	D
617)	PRP_CERTIFYING_AUTHORITY_TITLE	PRP CERT AUTH TITLE	C,15
618)	PRP_CERTIFYING_OFFICER_AUTHORITY	PRP CERT OFF AUTH	C,15
619)	PRP_CERTIFYING_OFFICER_NAME	PRP CERT OFF NAME	C,30
620)	PRP_CERTIFYING_OFFICER_RANK	PRP CERT OFF RANK	C,10
621)	PRP_CERTIFYING_OFFICER_TITLE	PRP CERT OFF TITLE	C,20
622)	PRP_CERTIFYING_OFF_DESIG_DATE	PRP CERT OFF DESIG DATE	D
623)	PRP_CERT_AUTHORITY_NAME	PRP CERT AUTH NAME	C,25
624)	PRP_CERT_AUTHORITY_RANK	PRP CERT AUTH RANK	C,10
625)	PRP_CERT_AUTH_ORGANIZATION	PRP CERT AUTH ORG	C,25
626)	PRP_CERT_AUTH_SIGNATURE_IND	PRP CERT AUTH SIG	L
627)	PRP_CONTROLLED_BILLETS_REQUIRED	PRP CONT BILLETS REQD	N,3
628)	PRP_CRITICAL_BILLETS_REQUIRED	PRP CRIT BILLET REQD	N,3
629)	PRP_EXCLUSION_ACCESS_CODE	PRP EXCLUSION ACCESS	C,15
630)	PRP_KEY_ACCESS_CODE	PRP KEY ACCESS	C,10
631)	PRP_MEDICAL_SCREEN_DATE	PRP MED SCRN DATE	D
632)	PRP_MED_SCREEN_AUTHORITY_NAME	PRP MED SCRN AUTH NAME	C,25
633)	PRP_MED_SCRN_AUTHORITY_RANK	PRP MED SCRN AUTH RANK	C,15
634)	PRP_MED_SCRN_AUTHORITY_TITLE	PRP MED SCRN AUTH TITLE	C,15
635)	PRP_MED_SCRN_AUTH_ORGANIZATION	PRP MED SCRN ORG	C,25
636)	PRP_MED_SCRN_AUTH_SIGNATURE_IND	PRP MED SCRN AUTH SIG	L
637)	PRP_MEMBER_DEPARTMENT	PRPMBRDEPT	C,15
638)	PRP_MEMBER_DIVISION	PRPMBRDIV	C,15

639)	PRP_MEMBER_NAME	PRPMBRNAM	C,45
640)	PRP_MEMBER_SSN	PRPMBRSSN	N,12
641)	PRP_PERMANENT_REMOVAL_DATE	PRP PERM RMVL DATE	D
642)	PRP_PERMANENT_REMOVAL_REASON	PRP PERM RMVL REASON	C,50
643)	PRP_PERMANENT_REMOVAL_TIME	PRP PERM RMVL TIME	N,4
644)	PRP_REINSTATEMENT_DATE	PRP REINSTATE DATE	D
645)	PRP_REINSTATEMENT_TIME	PRP REINSTATE TIME	N,4
646)	PRP_SECURITY_SCREEN_AUTH_NAME	PRPSEC SCRN AUTH	C,25
647)	PRP_SECURITY_SCREEN_AUTH_TITLE	PRPSEC SCRN AUTH TITLE	C,25
648)	PRP_SECURITY_SCREEN_DATE	PRPSEC SCREEN DATE	D
649)	PRP_SEC_SCREEN_AUTHORITY_RANK	PRPSEC SCRN AUTH RANK	C,10
650)	PRP_SEC_SCREEN_AUTH_ORGANIZATION	PRPSEC SCRN AUTH ORG	C,25
651)	PRP_SEC_SCRN_AUTH_SIGNATURE_IND	PRPSEC SCRN AUTH SIG	L
652)	PRP_TEMPORARY_REMOVAL_DATE	PRP TEMP RMVL DATE	D
653)	PRP_TEMP_REMOVAL_REASON	PRP TEMP RMVL REASON	C,50
654)	PRP_TEMP_REMOVAL_TIME	PRP TEMP RMVL TIME	N,4
655)	PRP_URINE_SCREEN_DATE	PRP URINE SCRN DATE	D
656)	PRP_URINE_SCRN_AUTHORITY_NAME	PRP URIN SCRN AUTH NAME	C,25
657)	PRP_URINE_SCRN_AUTH_RANK	PRP URIN SCRN AUTH RANK	C,10
658)	PRP_URIN_SCRN_AUTH_ORGANIZATION	PRP URIN SCRN AUTH ORG	C,25
659)	PRP_URIN_SCRN_AUTH_SIGNATURE_IND	PRP URIN SCRN AUTH SIG	L
660)	PRP_URIN_SCRN_AUTH_TITLE	PRP URIN SCRN AUTH TITLE	C,15
661)	PUBLICATION_AUTHOR_OR_ORIG	PUB AUTH ORIG	C,25
662)	PUBLICATION_DATE	PUB DATE	D
663)	PUBLICATION_NUMBER	PUBNBR	C,10
664)	PUBLICATION_PUBLISHER_NAME	PUB PUBLISHER NAME	C,25
665)	PUBLICATION_REVISION_CHANGE	PUB REV	N,2
666)	PUBLICATION_TITLE	PUBTITLE	C,25

667)	RADIATION_CODE	EXCODE	C,2
668)	RADIATION_PROTECT_MED_SCREEN_IND	RADMED SCRNIND	L
669)	RADIATION_SURVEY_DATE	RADSURDAT	D
670)	RADIATION_SURVEY_NAME	RADSURNAM	C,50
671)	RADIATION_SURVEY_ORGANIZATION	RADSURVORG	C,45
672)	RADIATION_SURVEY_TYPE	RADSURTYP	C,25
673)	RADIATION_TYPE	RADTYP	C,15
674)	RADIATION_TYPE_CODE	RADTYPCOD	C,6
675)	RAD_BIOASSAY_ACTIVITY	RADBISHPNM	C,25
676)	RAD_BIOASSAY_CHEMICAL_FORM	RADBICFORM	C,30
677)	RAD_BIOASSAY_COMMENT_IND	RADBCMTIND	L
678)	RAD_BIOASSAY_DATE	BIODATE	D
679)	RAD_BIOASSAY_INDICATOR	BIOIND	L
680)	RAD_BIOASSAY_INSTRUMENT	RADBIINSTR	C,25
681)	RAD_BIOASSAY_LOCATION	RADBILOC	C,25
682)	RAD_BIOASSAY_PROBE_DESCRIPTION	RADBIPROBE	C,40
683)	RAD_BIOASSAY_PROBE_SERIAL_NUMBER	RADBIPROBNUM	N,14
684)	RAD_BIOASSAY_PURPOSE	RADBIPUR	C,79
685)	RAD_BIOASSAY_RADIONUCLIDE_TYPE	RADBIRDCLD	C,6
686)	RAD_BIOASSAY_RESULT	RADBIRSLT	N,8
687)	RAD_BIOASSAY_SERIAL_NUMBER	RADBISERNUM	N,14
688)	RAD_BIOASSAY_TIME	RADBITM	N,4
689)	RAD_BIOASSAY_TYPE	BIOTYPE	C,1
690)	RAD_BIO_MIN_DETECTABLE_ACTIVITY	RADBIMDA	C,4
691)	RAD_EXPOSURE_EXTREMITY	EXTREM	N,6
692)	RAD_EXPOSURE_SHIP_ADDRESS	EXSHPADDR	C,20
693)	RAD_EXP_COMMENT	EXPCMNT	C,79
694)	RAD_EXP_COMMENT_INDICATOR	EXCMTID	L

695)	RAD_EXP_ESTIMATED_INDICATOR	EXESIND	L
696)	RAD_EXP_LOCATION_SHIP_NAME	EXPSHPNM	C,40
697)	RAD_EXP_QUARTER_NUMBER	EXPQTR	N,7
698)	RAD_EXP_RECORD_TYPE	EXRECTYP	C,1
699)	RAD_EXP_RESULT_GAMMA	EXGAMRS	N,5
700)	RAD_EXP_RESULT_NEUTRON	EXNEURS	N,5
701)	RAD_EXP_SEQUENCE_NUMBER	EXSEQN	N,3
702)	RAD_EXP_SKIN_DOSAGE	EXSKIN	N,5
703)	RAD_EXP_START_DATE	EXSTRDT	D
704)	RAD_EXP_STOP_DATE	EXSTPDT	D
705)	RAD_EXP_TLD_TYPE	TLDTYPE	C,4
706)	RAD_EXP_TOTAL_LIFE_NUMERIC	EXTLIFE	N,7
707)	RAD_EXP_TOTAL_LIFE_TO_DATE	EXTL2DT	N,6
708)	RAD_EXP_TOTAL_PERIOD_COUNT	EXTOTPD	N,6
709)	RAD_EXP_VISITOR_MEMBER_INDICATOR	VISTIN	L
710)	RAD_NON_REPORTING_VISITOR_IND	NORPTVIS	L
711)	RAD_PERMISSIBLE_LIFETIME_COUNT	RADPERMEXP	N,7
712)	RAD_TOTAL_EXPOSURE	TOTEXP	N,6
713)	REFERENCE_ASSOCIATION	REF ASSOC	C,25
714)	REFERENCE_ASSOCIATION_FROM_DATE	REF ASSOC FM DATE	D
715)	REFERENCE_ASSOCIATION_TO_DATE	REF ASSOC TO DATE	D
716)	REFERENCE_CITY	REF CITY	C,25
717)	REFERENCE_HOME_PHONE	REF HOME PHONE	C,12
718)	REFERENCE_NAME	REF NAME	C,45
719)	REFERENCE_OFFICE_PHONE	REF OFF PHONE	C,12
720)	REFERENCE_STATE	REF STATE	C,2
721)	REFERENCE_STREET_ADDRESS	REF STREET ADD	C,25
722)	REFER_CLIENT_ATTITUDE_REMARKS	REFCLIATT	C,12

0

723)	REFER_CLIENT_COMMAND	REFCLICOM	C,50
724)	REFER_CLIENT_COMMAND_UIC	REFCLIUIC	N,7
725)	REFER_CLIENT_DAPA_COMMENTS	REFCLIDAPCMT	C,120
726)	REFER_CLIENT_INFORMATION_IND	REFCLIINF	L
727)	REFER_CLIENT_LEADERSHIP_CMNT	REFCLILEDCMNT	C,120
728)	REFER_CLIENT_LEADERSHIP_CODE	REFCLILED	N,1
729)	REFER_CLIENT_MED_DOCUMENTS_IND	REFCLIMED	L
730)	REFER_CLIENT_NAME	REFCLIENTNAM	C,50
731)	REFER_CLIENT_NUMBER	REFCLIENTNAM	C,50
732)	REFER_CLIENT_PERFORMANCE_CODE	REFCLIPERCOD	C,1
733)	REFER_CLIENT_PERFORMANCE_COMMENT	REFPERCMT	C,120
734)	REFER_CLIENT_PERFORMANCE_TYPE	REFERPERTYP	C,1
735)	REFER_CLIENT_PERSONAL_TRAIT_CMNT	REFCLITRACMT	C,120
736)	REFER_CLIENT_PERSONAL_TRAIT_CODE	REFCLITRA	N,2
737)	REFER_CLIENT_PERSONAL_TRAIT_IND	REFCLITRAIND	L
738)	REFER_CLIENT_PREV_TREATMENT_CODE	REFCLIPREVTRT	N,1
739)	REFER_CLIENT_PREV_TREATMENT_DATE	REFCLIPREDT	D
740)	REFER_CLIENT_PREV_TREATMENT_IND	REFCLIPRETRTIND	L
741)	REFER_CLIENT_RELATIONS_CODE	REFCLIREL	C,1
742)	REFER_CLIENT_RELATIONS_COMMENTS	REFRELCMT	C,120
743)	REFER_CLIENT_RELATIONS_TYPE_CODE	REFCLIREL	N,1
744)	REFER_CLIENT_RETENTION_RECOMMEND	REFCLIRET	C,50
745)	REFER_CLIENT_SUPERVISOR_COMMENTS	REFCLISUPCMNT	C,120
746)	REFER_CLIENT_SUPERVISOR_NAME	REFCLISUP	C,50
747)	REFER_CLIENT_TAD_INDICATOR	REFCLITAD	L
748)	REFER_DAPA_COMMAND	REFDAPCOM	C,50
749)	REFER_DAPA_NAME	REFDAPNME	C,50
750)	REFER_DAPA_PHONE	REFDAPPHO	N,12

751)	REFER_DATE	REFDATE	D
752)	REFER_PRESENTING_PROBLEM	REFPREPRO	C,12
0			
753)	REPOSSESSIONS	REPOSSESSIONS	L
754)	REPRODUCTION_AUTHORITY_DATE	REPRO AUTH DATE	D
755)	REPRODUCTION_AUTHORITY_NAME	REPRO AUTH NAME	C,30
756)	REPRODUCTION_AUTHORITY_TITLE	REPRO AUTH TITLE	C,20
757)	REPRODUCTION_MATERIAL_PAGES	REPRO MAT PAGES	N,3
758)	REPRODUCTION_MATERIAL_REASON	REPRO MAT REASON	C,60
759)	REPRODUCTION_REQUESTED_MATERIAL	REPRO REQ MAT	C,45
760)	REPRODUCTION_REQUESTOR_COMMAND	REPRO REQUESTOR COMMAND	C,30
761)	REPRODUCTION_REQUESTOR_DATE	REPRO REQ DATE	D
762)	REPRODUCTION_REQUESTOR_NAME	REPRO REQUESTOR NAME	C,30
763)	REPRODUCTION_REQUESTOR_TITLE	REPRO REQUESTOR TITLE	C,10
764)	REPRODUCTION_REQUEST_APPROVAL	REPRO REQ APPROVAL	L
765)	RESIDENCE_CITY	RES CITY	C,25
766)	RESIDENCE_COUNTRY	RES COUNTRY	C,20
767)	RESIDENCE_FROM_DATE	RES FROM DATE	D
768)	RESIDENCE_STATE	RES STATE	C,2
769)	RESIDENCE_STREET_ADDRESS	RES STREET	C,25
770)	RESIDENCE_TO_DATE	RES TO DATE	D
771)	RESPIRATOR_INDICATOR	RESPIND	L
772)	RESPIRATOR_TYPE	RESPTYP	C,40
773)	RESPIRATOR_TYPE_DESCRIPTION	RESPTYDEC	C,75
774)	RESPIRATOR_USER_CONDITION_CODE	RESPUSRCOND	N,2
775)	RETURN_DATE	RTNDAT	D
776)	ROOMMATE_CURRENT_CITY	ROOMMATE CITY	C,25
777)	ROOMMATE_CURRENT_PHONE	ROOMMATE PHONE	C,12
778)	ROOMMATE_CURRENT_STATE	ROOMMATE STATE	C,2

779)	ROOMMATE_CURRENT_STREET_ADDRESS	ROOMMATE STREET	C,25
780)	ROOMMATE_NAME	ROOMMATE	C,25
781)	SAFETY_HAZARD_INDICATOR	SAF HAZ	L
782)	SAFETY_MEMBER_DIVISION	SAFMBRDIV	C,25
783)	SAFETY_MEMBER_DIVISION_PHONE	SAFMBRDIVPHON	N,5
784)	SAFETY_MEMBER_NAME	SAFMBRNAM	C,45
785)	SAFETY_MEMBER_SSN	SAFMBRSSN	N,12
786)	SAFETY_OFFICER_LOCATION	SAFLOCA	C,25
787)	SAFETY_OFFICER_NAME	SAFOFFNAM	C,50
788)	SAFETY_OFFICER_PHONE	SAFPHON	N,5
789)	SCREEN_EXAM_DATE	SCREXDT	D
790)	SECURITY_BACKGROUND_REMARKS	SEC RMKS	C,10
791)	SECURITY_CONTAINER_BUILDING	SEC CONT BLDG	C,15
792)	SECURITY_CONTAINER_CLASS	SEC CONT CLASS	C,1
793)	SECURITY_CONTAINER_COMMAND	SEC CONT COMMAND	C,30
794)	SECURITY_CONTAINER_CONDITION	SEC CONT CONDITION	C,45
795)	SECURITY_CONTAINER_DATE_RECEIVED	SEC CONT DATE RCVD	D
796)	SECURITY_CONTAINER_DESCRIPTION	SEC CONT DESC	C,25
797)	SECURITY_CONTAINER_LOCATION	SEC CONT LOC	C,30
798)	SECURITY_CONTAINER_LOCK_MODEL	SEC CONT LOCK MODEL	C,30
799)	SECURITY_CONTAINER_NUMBER	SEC CONT NUM	C,5
800)	SECURITY_CONTAINER_OFFICE_CODE	SEC CONT OFF CODE	C,5
801)	SECURITY_CONTAINER_REMARKS	SEC CONT REMARKS	C,10
802)	SECURITY_CONTAINER_SERIAL_NUMBER	SEC CONT SERIAL NUM	C,6
803)	SECURITY_CONTAINER_STOCK_NUMBER	SEC CONT STOCK NUM	C,15
804)	SECURITY_FORCE_AUTHORITY_NAME	SECFOR AUTHNAME	C,25
805)	SECURITY_FORCE_AUTHORITY_RANK	SECFOR AUTH RANK	C,10
806)	SECURITY_FORCE_BILLET_NAME	SECFOR BILLET NAME	C,25

807)	SECURITY_FORCE_BILLET_TYPE	SECFOR BILLET TYPE	C,25
808)	SECURITY_FORCE_DATA_UPDATE_DATE	SECFOR DATA UPDATE DATE	D
809)	SECURITY_FORCE_DATA_UPDATE_NAME	SECFOR DATA UPDATE NAME	C,25
810)	SECURITY_FORCE_DUTY_SECTION	SECFOR DUTY SECTION	N,1
811)	SECURITY_FORCE_STATUS_DATE	SECFOR STATUS DATE	D
812)	SECURITY_FORCE_STATUS_IND	SECFOR STATUS	C,1
813)	SECURITY_FORCE_WEAPON_QUAL_DATE	SECFOR WPN QUAL DATE	D
814)	SECURITY_FORCE_WEAPON_QUAL_TYPE	SEC FOR WEAPON QUAL TYPE	C,25
815)	SECURITY_FORCE_WPN_REQUAL_DATE	SECFOR WPN REQUAL DATE	D
816)	SECURITY_MEMBER_DIVISION	SECMBRDIV	C,25
817)	SECURITY_MEMBER_NAME	SECMBRNAM	C,45
818)	SECURITY_MEMBER_SSN	SECMBRSSN	N,12
819)	SECURITY_MEMBER_SUB-FUNCTION	SECMBRSUBFUNCTION	C,25
820)	SECURITY_OFFICER	SECOFF	C,50
821)	SECURITY_OFFICER_NAME	SECOFF	C,50
822)	SECURITY_OFFICER_PHONE	SECOFFPHON	N,5
823)	SECURITY_OFFICE_LOCATION	SECOFFLOCA	C,25
824)	SECURITY_SUBFUNCTION_NAME	SEC SUB NAME	C,30
825)	SEC_CONTAINER_COMBINATION_DATE	SEC CONT COMB DATE	D
826)	SEC_CONTAINER_COMBINATION_MEMBER	SEC CONT COMB MBR	C,30
827)	SEC_CONTAINER_DOCUMENT_QUANTITY	SEC CONT DOC QTY	N,4
828)	SEC_CONTAINER_HASP_SERIAL_NUMBER	SEC CONT HASP SER NUM	C,10
829)	SEC_CONTAINER_LOCK_SERIAL_NUMBER	SEC CONT LOCK SER NUM	C,10
830)	SEC_CONTAINER_MANUFACTURE_DATE	SEC CONT MANUFACTURE DATE	D
831)	SEC_CONTAINER_MATERIAL_CLASS	SEC CONT MATERIAL CLASS	C,15
832)	SEC_CONTAINER_PERCENT_CONFIDENT	SEC CONT PERCENT CONFIDENTIAL	N,5,2
833)	SEC_CONTAINER_PERCENT_SECRET	SEC CONT PERCENT SECRET	N,5,2
834)	SEC_CONTAINER_PERCENT_TOP_SECRET	SEC CONT PERCENT TS	N,5,2

835)	SEC_CONTAINER_PERCENT_UNCLASS	SEC CONT PERCENT UNCLASS	N,5,2
836)	SEC_CONTAINER_SECURITY_POINTS	SEC CONT SEC POINTS	N,5
837)	SEC_FORCE_AUTH_SIGNATURE_DATE	SECFOR AUTH SIG DATE	D
838)	SEC_FORCE_AUTH_SIGNATURE_IND	SECFOR AUTH SIG	L
839)	SEC_FORCE_NUMBER_WEAPON_QUALS	SECFOR WPN QUALS	N,2
840)	SICKCALL_BLOOD_PRESSURE_SYSTOLC	SICKBPSYS	N,3
841)	SICKCALL_BLOOD_PRESS_DIASTOLIC	SICKBPDIAS	N,3
842)	SICKCALL_BODY_TEMP	SICKBODTMP	N,5
843)	SICKCALL_DATE	SICKDAT	D
844)	SICKCALL_DISPOSITION_COMMENTS	SICKDISPCOM	C,120
845)	SICKCALL_DISPOSITION_TYPE	SICKDISTYP	N,1
846)	SICKCALL_ESTIMATED_DAYS	SICKESTDAY	N,3
847)	SICKCALL_FOLLOW_UP_DATE	SICKFOLLOWD	D
848)	SICKCALL_FOLLOW_UP_TIME	SICKFOLLOWT	T
849)	SICKCALL_MED_FACILITY_LOCATION	SICKFACLOC	C,50
850)	SICKCALL_PULSE_RATE	SICKPULSRT	N,3
851)	SICKCALL_RESPIRATION	SICKRESPRT	N,3
852)	SICKCALL_START_TIME	SICKSTART	T
853)	SICKCALL_TREATMENT_COMPLETE_IND	SICKTRMTCOMPIND	L
854)	SICKCALL_VIA_TRANSPORTATION	SICKVIATRA	C,20
855)	SIGHT_HAZARD_TYPE	SIHAZTYPE	C,50
856)	SIGHT_SPACE_LOCATION	SISURVLO	C,25
857)	SIGHT_SURVEY_COMMENTS	SISURVCT	C,120
858)	SIGHT_SURVEY_DATE	SISURVDT	D
859)	SIGHT_SURVEY_DUE_DATE	SISURVDU	D
860)	TAG_ACTION_TYPE_AUTHORITY_NAME	TAGACTAUTH	C,50
861)	TAG_ACTION_TYPE_CODE	TAGACTTYP	C,1
862)	TAG_ACTION_TYPE_DATE	TAGACTDT	D

863)	TAG_DEPARTMENT_NAME	TAGDEPT	C,25
864)	TAG_DEPARTMENT_SEQUENCE_NUMBER	TAGDEPNUM	N,10
865)	TAG_DIVISION_NAME	TAGDIV	C,25
866)	TAG_EQUIPMENT_NAME	TAGEQUIPNAM	C,50
867)	TAG_FIRST_PERSON_NAME	TAGFIRNAM	C,50
868)	TAG_NUMBER_OF_TAGS	TAGNUMTAG	N,2
869)	TAG_SECOND_PERSON_NAME	TAGSECNAM	C,50
870)	TAG_SYSTEM_EFFECTED	TAGSYS	C,75
871)	TAG_TYPE_CODE	TAGTYP	C,1
872)	TAG_TYPE_HAZARD	TAGHAZ	C,12
0			
873)	TAG_TYPE_INSTRUCTIONS	TAGINST	C,12
0			
874)	TAX_PURPOSE_LIEN	TAX LEIN	L
875)	THREAT_NAME	THREAT NAME	C,45
876)	THREAT_RISK	THREAT RISK	C,1
877)	UNDER_THE_INFLUENCE_CODE	UND INF	N,1
878)	UNPAID_JUDGEMENTS	UNPAID JUDGEMENTS	L
879)	VISITOR_ARRIVAL_DATE	VIS ARR DATE	D
880)	VISITOR_ARRIVAL_TIME	VIS ARR TIME	T
881)	VISITOR_BADGE_NUMBER	VIS BADGE	C,4
882)	VISITOR_CONTROL_SUPERVISOR_LOCAT	VISSUPVRLOCA	C,25
883)	VISITOR_CONTROL_SUPERVISOR_NAME	VISSUPVRNAM	C,50
884)	VISITOR_CONTROL_SUPERVISOR_PHONE	VISSUPVRPHON	N,5
885)	VISITOR_DEPARTURE_TIME	VIS DEP TIME	T
886)	VISITOR_DESTINATION	VIS DEST	C,20
887)	VISITOR_ESCORT_NAME	VIS ESCORT	C,25
888)	VISITOR_NAME	VIS NAME	C,45
889)	VISITOR_ORGANIZATION	VIS ORG	C,25
890)	WATER_BACTERIA_TEST_RESULTS	WTRBAC	C,3

891)	WATER_TEST_COMMENT	WTRCMNT	C,79
892)	WATER_TEST_DATE	WTRTESTDAT	D
893)	WATER_TEST_LOCATION	WTRLOC	C,50
894)	WATER_TEST_SEQUENCE	WTRSAMP	N,2
895)	WATER_TEST_SEQUENCE_NUMBER	WTRSAMPNBR	N,2
896)	WATER_TEST_SOURCE	WTRSRC	C,25
897)	WQSB_BILLET_NUMBER	WQSBBILNUM	N,12
898)	WQSB_BILL_NAME	WQSBBILNAM	C,25
899)	WQSB_BILL_STATION_ASSIGNED	WQSBBILLSTA	C,25
900)	WQSB_BILL_STATION_PROVIDE	WQSBBILLSTAPRO	C,25
901)	WQSB_CONDITION_I	WQSBCON1	C,25
902)	WQSB_CONDITION_TYPE_CODE	WQSBCONDTYP	N,1
903)	WQSB_DIVISION	WQSBDIV	C,25
904)	WQSB_LAST_UPDATED_BY_NAME	WQSBUPNAM	C,45
905)	WQSB_LAST_UPDATED_DATE	WQSBDT	D
906)	WQSB_NUMBER_OF_BILLS	WQSBNUMBILL	N,2
907)	WQSB_RATE_ACTUAL	WQSBRATACT	N,2
908)	WQSB_RATE_ALLOWANCE	WQSBRATALW	N,2
909)	WQSB_RATE_COMPLIMENT	WQSBRATCMP	N,2
910)	WQSB_REMARKS	WQSBRMKS	C,25
911)	WQSB_WATCH_TYPE_CODE	WQSBWATCHTYP	C,6
912)	WSQSB_REMARKS	WQSBRMKS	C,25

159 Objects in the 'DMAIN' Dictionary.
912 Attributes in the 'DMAIN' Dictionary.

APPENDIX M

DICTIONARY OF ABBREVIATIONS

This appendix contains a Dictionary of Abbreviations and acronyms used in the body of the thesis and the diagram reports.

APPENDIX M

DICTIONARY OF ABBREVIATIONS

ABBREVIATION	DEFINITION
ABO	AGGLUTININ BLOOD GROUPING SYSTEM
ADMIN	ADMINISTRATIVE
ADP	AUTOMATED DATA PROCESSING
AUTH	AUTHORITY
BIO	BIOLOGICAL
CAL/RECAL	CALIBRATION/RECALIBRATION
CERT	CERTIFICATION
CLASS	CLASSIFIED/CLASSIFICATION
CLASSMAT	CLASSIFIED MATERIAL
CMNT	COMMENT
CONFIDENT	CONFIDENTIAL
CONT	CONTINGENCY
CSMP	CONSOLIDATED SHIPS MAINTENANCE PACKAGE
DAPA	DRUG AND ALCOHOL PROGRAM ADVISOR
DEPT	DEPARTMENT
DESIG	DESIGNATOR/DESIGNATION
DURAT	DURATION
ELEC	ELECTRICAL
EQUIP	EQUIPMENT
EVAL	EVALUATION
EXP	EXPOSURE
FOLLWUP	FOLLOW UP
HAZMAT	HAZARDOUS MATERIAL
ID	IDENTIFICATION

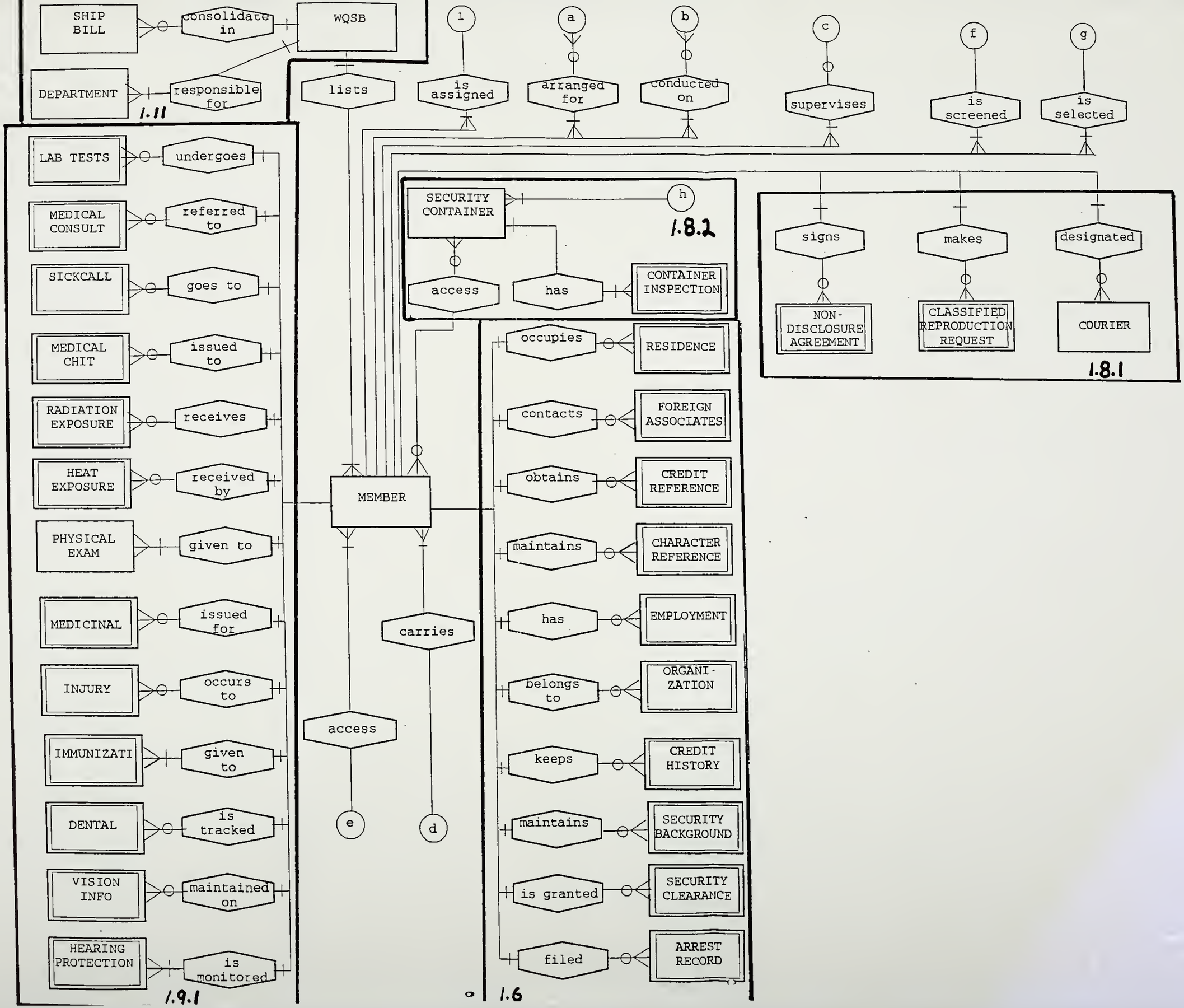
ABBREVIATION	DEFINITION
IND	INDICATOR
INFO	INFORMATION
INV	INVENTORY
MBR	MEMBER
MED	MEDICAL
MIN	MINIMUM
NO	NUMBER
NONDISC	NONDISCLOSURE
NSN	NATIONAL STOCK NUMBER
NUM	NUMBER
OFF	OFFICE/OFFICER
OPS	OPERATIONS
ORIG	ORIGINATOR
PHEL	PERSONNEL HEAT EXPOSURE LIMIT
PHOTO	PHOTOGRAPH/PHOTOGRAPHY
PPD	TUBERCULIN PURIFIED
PRESS	PRESSURE
PREV	PREVIOUS
PRP	PERSONNEL RELIABILITY PROGRAM
QUAL	QUALIFICATION
RAD	RADIATION
REFER	REFERRAL
RH	RHESUS HEMOANTIBODY BLOOD GROUPING SYSTEM
SCRN	SCREEN
SEC	SECURITY
SSN	SOCIAL SECURITY NUMBER

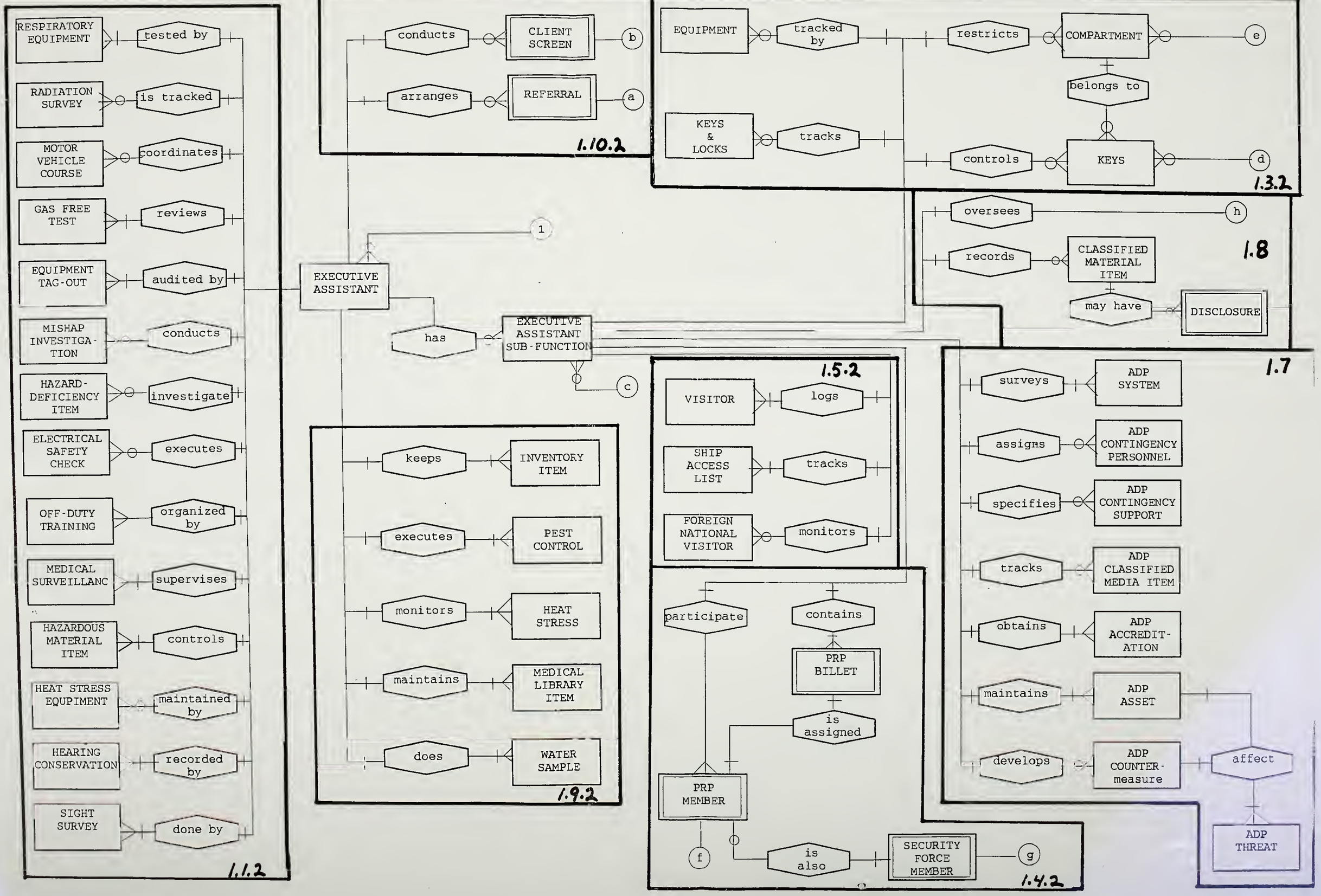
ABBREVIATION	DEFINITION
SURV	SURVEY
SURVEIL	SURVEILLANCE
SYSTOLC	SYSTOLIC
TAD	TEMPORARY ASSIGNED DUTY
TEMP	TEMPERATURE/TEMPORARY
TLD	THERMO LUMINESCENT DEVICE
TYP	TYPE
UIC	UNIT IDENTIFICATION CODE
UNCLASS	UNCLASSIFIED
URIN	URINE
VEH	VEHICLE
WPN	WEAPON
WQSB	WATCH QUARTER AND STATION BILL

APPENDIX N

INTEGRATED VIEW DIAGRAM

This appendix contains the integrated view of the entity relationship diagrams for each function as discussed in Chapter V.


SHIP BILL
consolidate in
WQSB
DEPARTMENT
responsible for
1.11
lists
1
is assigned
a
arranged for
b
conducted on
c
supervises
f
is screened
g
is selected
LAB TESTS
undergoes
MEDICAL CONSULT
referred to
SICKCALL
goes to
MEDICAL CHIT
issued to
RADIATION EXPOSURE
receives
HEAT EXPOSURE
received by
PHYSICAL EXAM
given to
MEDICINAL
issued for
INJURY
occurs to
IMMUNIZATI
given to
DENTAL
is tracked
VISION INFO
maintained on
HEARING PROTECTION
is monitored
1.9.1
MEMBER
access
carries
e
d
SECURITY CONTAINER
h
1.8.2
access
has
CONTAINER INSPECTION
signs
makes
designated
NON-DISCLOSURE AGREEMENT
CLASSIFIED REPRODUCTION REQUEST
COURIER
1.8.1
occupies
RESIDENCE
contacts
FOREIGN ASSOCIATES
obtains
CREDIT REFERENCE
maintains
CHARACTER REFERENCE
has
EMPLOYMENT
belongs to
ORGANI-ZATION
keeps
CREDIT HISTORY
maintains
SECURITY BACKGROUND
is granted
SECURITY CLEARANCE
filed
ARREST RECORD
1.6


RESPIRATORY EQUIPMENT
tested by
RADIATION SURVEY
is tracked
MOTOR VEHICLE COURSE
coordinates
GAS FREE TEST
reviews
EQUIPMENT TAG-OUT
audited by
MISHAP INVESTIGA-TION
conducts
HAZARD-DEFICIENCY ITEM
investigate
ELECTRICAL SAFETY CHECK
executes
OFF-DUTY TRAINING
organized by
MEDICAL SURVEILLANC
supervises
HAZARDOUS MATERIAL ITEM
controls
HEAT STRESS EQUPIMENT
maintained by
HEARING CONSERVATION
recorded by
SIGHT SURVEY
done by
1.1.2
conducts
CLIENT SCREEN
b
arranges
REFERRAL
a
1.10.2
EQUIPMENT
tracked by
restricts
COMPARTMENT
e
belongs to
KEYS & LOCKS
tracks
controls
KEYS
d
1.3.2
oversees
h
records
CLASSIFIED MATERIAL ITEM
may have
DISCLOSURE
1.8
1.7
1
EXECUTIVE ASSISTANT
has
EXECUTIVE ASSISTANT SUB-FUNCTION
c
keeps
INVENTORY ITEM
executes
PEST CONTROL
monitors
HEAT STRESS
maintains
MEDICAL LIBRARY ITEM
does
WATER SAMPLE
1.9.2
1.5.2
VISITOR
logs
SHIP ACCESS LIST
tracks
FOREIGN NATIONAL VISITOR
monitors
participate
contains
PRP BILLET
is assigned
PRP MEMBER
f
is also
SECURITY FORCE MEMBER
g
1.4.2
surveys
ADP SYSTEM
assigns
ADP CONTINGENCY PERSONNEL
specifies
ADP CONTINGENCY SUPPORT
tracks
ADP CLASSIFIED MEDIA ITEM
obtains
ADP ACCREDIT-ATION
maintains
ADP ASSET
develops
ADP COUNTER-measure
affect
ADP THREAT

APPENDIX O

ENTITY CLUSTERING DIAGRAMS

This appendix contains the entity clustering diagrams for each function as discussed in Chapter V.

FiGURE 1.1 : SAFETY

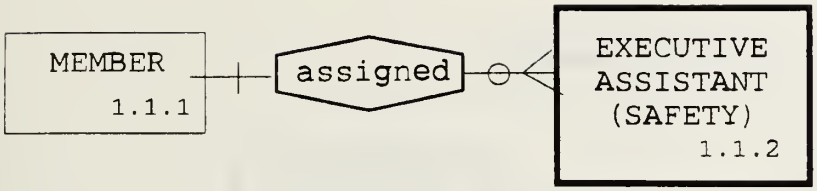


Figure 1.2 : SECURITY

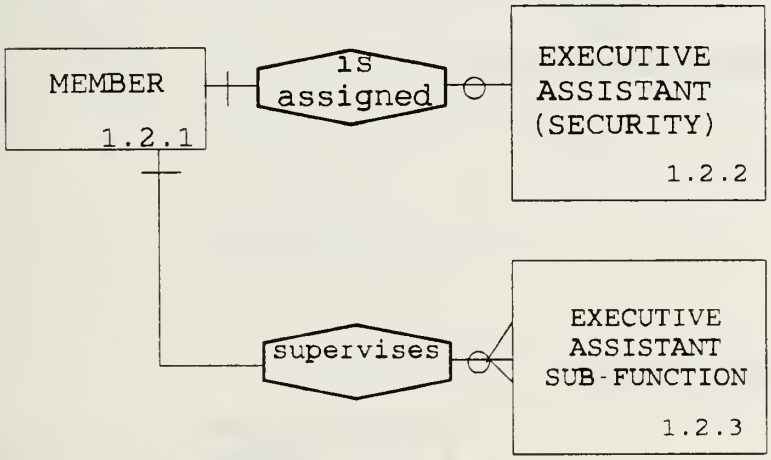


Figure 1.3 : PHYSICAL SECURITY

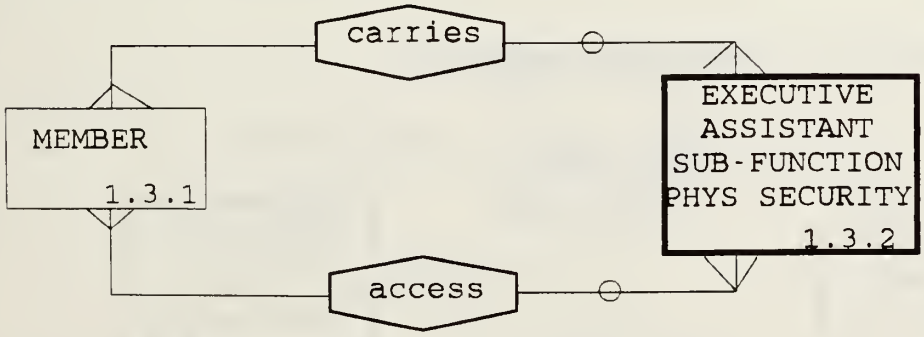


Figure 1.4 : PERSONNEL RELIABILITY PROGRAM (PRP)

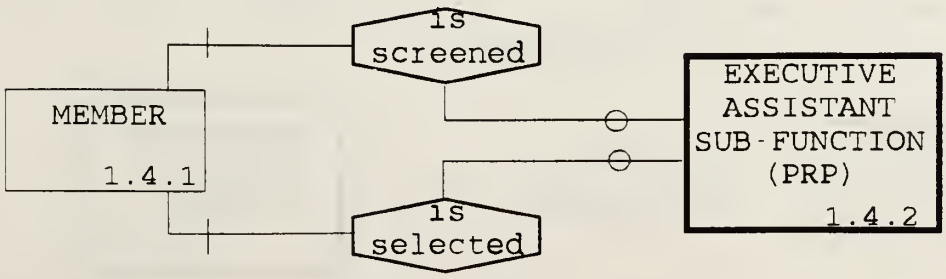


FiGURE 1.5 : VISITOR CONTROL

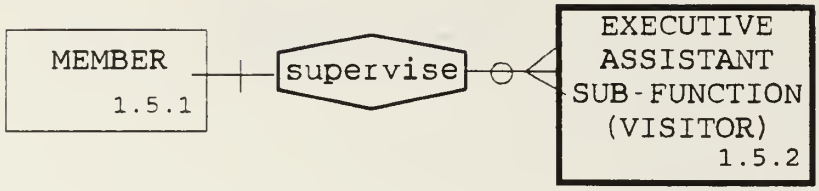


Figure 1.6 : CLEARANCE/ACCESS

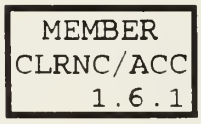


Figure 1.7 : ADP SECURITY

Figure 1.8 : CLASSIFIED MATERIAL

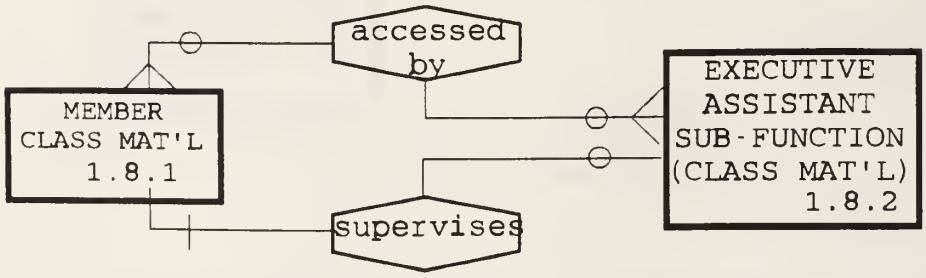


Figure 1.9 : MEDICAL

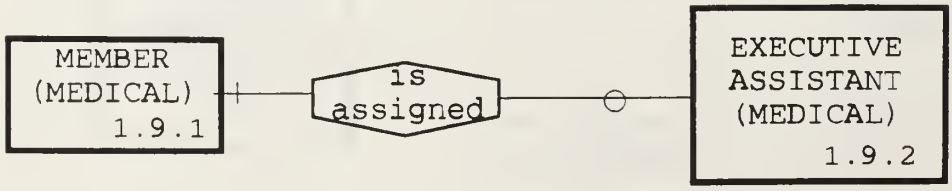


FiGURE 1.10 : DAPA

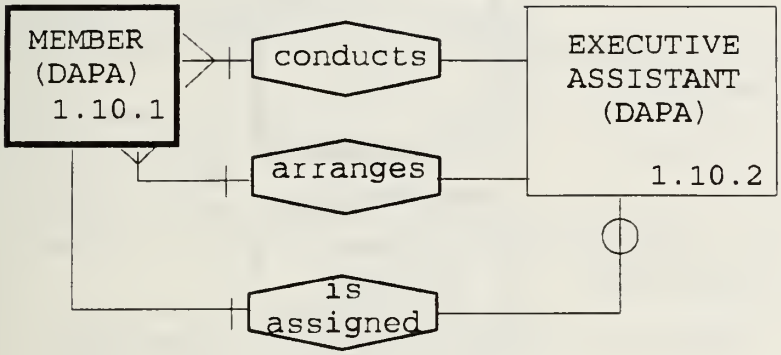


Figure 1.11 : WQSB

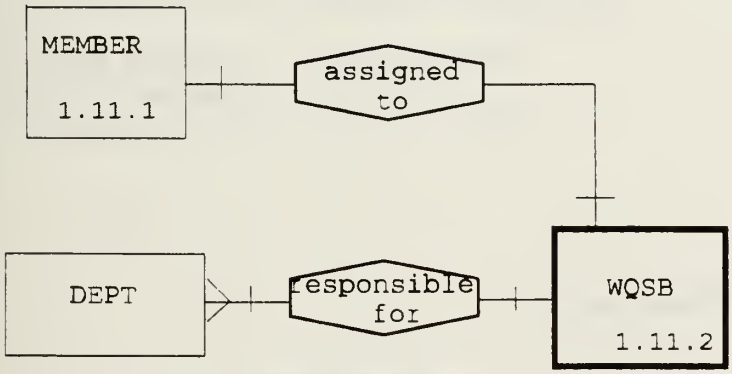


Figure 2.11 : WQSB

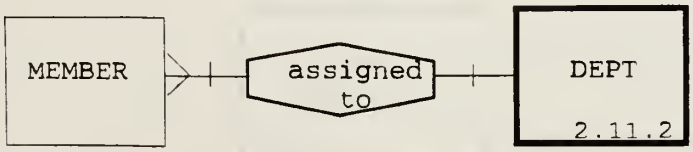


FiGURE 3.1 : ADMINISTRATION

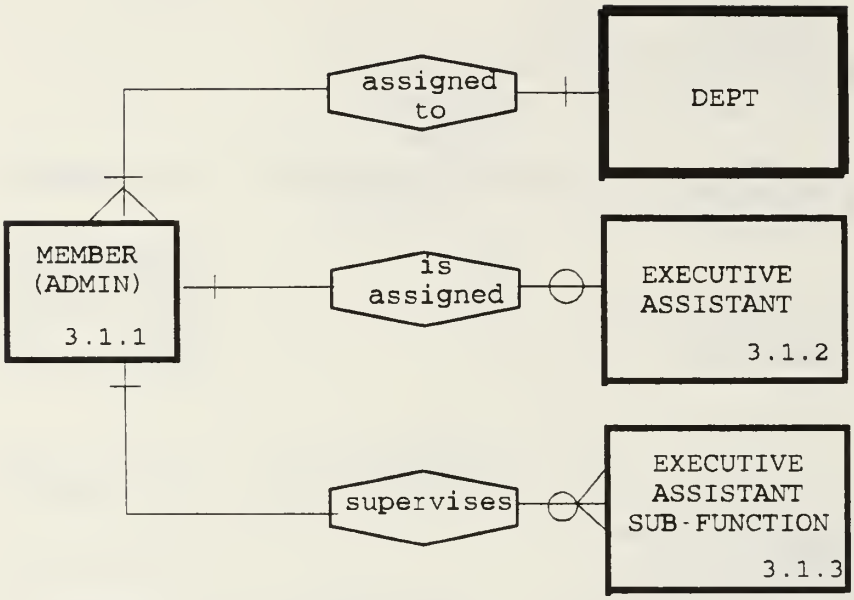
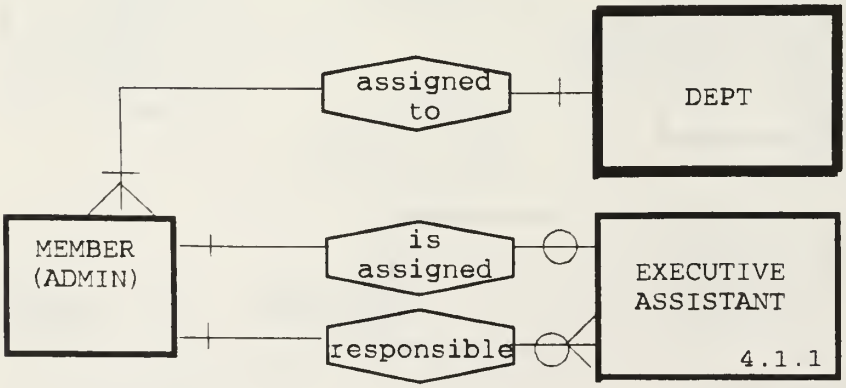


FiGURE 4.1 : ADMINISTRATION



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